Proceedings

OF THE

FIFTY-NINTH ANNUAL
CONVENTION

OF THE

Middle States Association
of
Colleges and Secondary Schools

1945

HOTEL PENNSYLVANIA, NEW YORK CITY
FRIDAY AND SATURDAY
NOVEMBER 23 and 24, 1945

PUBLISHED BY THE ASSOCIATION

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The 60th Annual Convention of the Association will be held at the Hotel Pennsylvania, New York City, on Friday and Saturday, November 28 and 29, 1946.

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LIST OF OFFICERS, 1945-46

President

George A. Walton, *Principal,* The George School.

Vice-President

Margaret T. Corwin, *Dean,* New Jersey College for Women.

Secretary

Karl G. Miller, *Dean,* University of Pennsylvania.

Treasurer

Burton P. Fowler, *Principal,* Germantown Friends School.

Executive Committee

W. Owen Sypherd, *Acting President,* University of Delaware, Delaware.

Emilie Margaret White, *Director of Foreign Languages,* Public Schools, Washington, D. C.

Waldo Kindig, *Principal,* Plainfield High School, New Jersey.

Gilbert W. Mead, *President,* Washington College, Maryland.

Lester W. Nelson, *Principal,* Scarsdale High School, New York.

John F. Gummere, *Headmaster,* William Penn Charter School, Pennsylvania.

David A. Robertson, *President,* Goucher College, Chairman of the Commission on Institutions of Higher Education.

E. D. Grizzell, *Professor of Secondary Education,* University of Pennsylvania, Chairman of the Commission on Secondary Schools.

Henry Grattan Doyle, *Dean,* George Washington University, retiring President of the Association (co-opted).

COMMISSION ON INSTITUTIONS OF HIGHER EDUCATION

TERMS EXPIRING IN 1946: Director FRANK H. BOWLES, Columbia University; Dr. J. HILLIS MILLER, Associate Commissioner of Education, Albany; President DAVID A. ROBERTSON, Goucher College, *Chairman;* PAUL D. SHAFER, Packer Collegiate Institute.

TERMS EXPIRING IN 1947: President WILLIAM E. WELD, Wells College; Director EUGENE F. BRADFORD, Cornell University; President HARRY A. SPRAGUE, Montclair Teachers College; President LEVERING TYSON, Muhlenberg College.

TERMS EXPIRING IN 1948: President WEIR C. KETLER, Grove City College; Headmaster CHARLES C. TILLINGHAST, Horace Mann School for Boys; Dr. ROY J. DEFERRARI, Catholic University of America; President ROBERT C. CLOTHIER, Rutgers University.

The President of the Association.

The Secretary of the Association.

Honorary Members:

Dr. FREDERICK C. FERRY.

President GEORGE WM. MCCLELLAND.

Dr. WALTER R. MARSH.

COMMISSION ON SECONDARY SCHOOLS

TERMS EXPIRING IN 1946: Assistant Commissioner WARREN W. KNOX, Albany; Principal L. GERTRUDE ANGELL, Buffalo Seminary; Principal HYMEN ALPERN, Evander Childs High School.

TERMS EXPIRING IN 1947: Headmaster CHARLES H. BREED, Blair Academy; Director EUGENE S. FARLEY, Bucknell Junior College; Registrar GEORGE B. CURTIS, Lehigh University.

TERMS EXPIRING IN 1948: Registrar W. J. O'CONNOR, Georgetown University; Professor E. D. GRIZZELL, University of Pennsylvania, *Chairman;* Dr. J. CAREY TAYLOR, Assistant Superintendent of Secondary Education, Baltimore.

The President of the Association.

The Secretary of the Association.

REPRESENTATIVES ON THE COLLEGE ENTRANCE EXAMINATION BOARD

Principal Burton P. Fowler, Germantown Friends School.
Headmaster Albert Rogers, Perkiomen School.
Headmistress Dorothy Brockway Osborne, The Spence School.
Principal Norman J. Nelson, Woodrow Wilson High School.
Principal Lemuel R. Johnston, Clifford J. Scott High School.

REPRESENTATIVES ON THE AMERICAN COUNCIL ON EDUCATION

President David A. Robertson, Goucher College.
Dean Henry Grattan Doyle, George Washington University.
Dean Karl G. Miller, University of Pennsylvania.

FRATERNAL DELEGATES

New England Association of Colleges and Secondary Schools, Headmaster Edward W. Eames, Governor Dummer Academy, South Byfield, Massachusetts, President of the Association.

Southern Association of Colleges and Secondary Schools, President Francis P. Gaines, Washington and Lee University, Lexington, Virginia.

TEMPORARY COMMITTEES

Committee on Nominations:

Eugene F. Bradford, Cornell University.
Eugene S. Farley, Bucknell Junior College.
Henry I. Stahr, Hood College.
Charles S. Tippetts, Mercersburg Academy.
Harold A. Ferguson, Montclair High School, *Chairman.*

Committee on Audit:

Margaret Tyler Paul, The Springside School.
Brother David, LaSalle High School.

Committee on Post-War Guidance of Veterans and Civilians:

Frank H. Bowles, Director of Admissions, Columbia University.
Francis J. Brown, Consultant, American Council on Education.
Morse A. Cartwright, American Association for Adult Education.
William E. Weld, President, Wells College.
Arthur J. Jones, Professor of Education, University of Pennsylvania, *Chairman.*

Committee on the Survey of Accredited Courses and Institutions for Veteran Education:

DAVID A. ROBERTSON, President, Goucher College.

E. D. GRIZZELL, Professor of Secondary Education, University of Pennsylvania.

GILBERT W. MEAD, President, Washington College, *Chairman.*

GENERAL MEETINGS OF THE ASSOCIATION

FRIDAY, NOVEMBER 23, 1945

Presiding Officer—Dean HENRY GRATTAN DOYLE, George Washington University, President of the Association.

THEME: SOME EDUCATIONAL PROBLEMS OF THE PEACE

10:00 A. M.—BUSINESS SESSION, Penn Top.

Report of the Executive Committee.
KARL G. MILLER, Secretary.

Report of the Treasurer and Committee on Audit.
BURTON P. FOWLER, Treasurer.

Report of the Commission on Institutions of Higher Education.
DAVID A. ROBERTSON, Chairman.
FRANK H. BOWLES, Secretary.

Report of the Commission on Secondary Schools.
E. D. GRIZZELL, Chairman.
IRA R. KRAYBILL, Secretary.

Report of the Committee on Post-War Guidance of Veterans and Civilians.
ARTHUR J. JONES, Chairman.
FRANK H. BOWLES, for the Sub-Committee.

Report of the Committee on a Survey of Accredited Courses and Institutions for Veteran Education.
GILBERT W. MEAD, Chairman.

Proposal for Draft Deferment of Pre-professional Groups.
HAROLD A. FERGUSON.

Memorial Minute—WILLIAM MATHER LEWIS.
ROBERT C. CLOTHIER, Rutgers University.

Amendment to the Constitution.
KARL G. MILLER, Secretary.

Election of Officers for 1945-46.
HAROLD A. FERGUSON, Chairman of the Nominating Committee.

11:30 A. M.—General Session, Penn Top.

Topic—The Continuing Education of Adults.

George Vernon Denny, Jr., President, The Town Hall, Inc., and Moderator of America's Town Meeting of the Air.

2:30 P. M.—General Session, Penn Top.

Topic—Social Controls of Science.

Arthur H. Compton, Chancellor, Washington University and Nobel Prize Winner in Physics.

Representing the Secondary Schools.
William G. Avirett, Educational Editor, New York *Herald Tribune.*

Representing the Colleges.
John R. Dunning, Associate Professor of Physics, Columbia University.

8:30 P. M.—General Session, Penn Top.

Topic—Education Among the United Nations

International Educational Exchanges: Past Experience and Future Possibilities.
Frank Aydelotte, Director, Institute for Advanced Study, Princeton, N. J.

Progress in International Cultural and Educational Relations: Instrumentalities and Needs.
George Frederick Zook, President, American Council on Education, Washington, D. C.

Discussion:
Led by Professor Grayson Kirk, Columbia University.

Saturday, November 24, 1945

9:15 A. M.—General Session, Penn Top.

Topic—Plans for General Education.

At the Level of the Secondary School.
John H. Finley, Jr., Eliot Professor of Greek, Harvard University.

At the College Level.
Raphael Demos, Alford Professor of Philosophy, Harvard University.

BUSINESS SESSION

Friday, November 23, 1945

The fifty-ninth annual convention of the Middle States Association of Colleges and Secondary Schools was called to order at 10 A. M. with President Henry Grattan Doyle presiding. The Invocation was delivered by Reverend Henry I. Stahr, President of Hood College. President Doyle then called on the Secretary of the Association to present the report of the Executive Committee.

REPORT OF EXECUTIVE COMMITTEE

Karl G. Miller, *Secretary*

This is the seventh Thanksgiving week-end since the present Secretary of the Association took office, and it might be proper to mention the fact that some special problem or complication has disorganized the plans for the annual meetings in each and every one of the seven years. In 1939, the convention program had been completed when President Roosevelt suddenly changed the date of Thanksgiving Day. In 1940 and 1941, various combinations of states within the area of the Association celebrated different Thanksgiving days. In 1942, the Thanksgiving problem having been settled, the Army took over the Atlantic City hotels, including Chalfonte-Haddon Hall which had served as our convention headquarters for fifteen years. The 1942 convention was therefore moved to the Hotel New Yorker in this city. In 1943, the convention was cancelled at the request of the Office of Defense Transportation, but last year the annual meetings were held in spite of government disapproval.

The conventions in 1942 and 1944 demonstrated that attendance at our meetings in New York City is approximately twice as large as it had been in Atlantic City. They also showed quite conclusively that the hotel which had served as our headquarters was unable to accommodate the Saturday program, which involves the meetings of ten affiliated associations in addition to the Middle States Association. Immediately following the convention last fall, therefore, arrangements were made to move to the Hotel Pennsylvania with its more extensive facilities. Very shortly thereafter, the Office of Defense Transportation banned all conventions and it seemed very unlikely that our present meetings would be possible. The Executive Committee, at its meeting last March decided that this fall's convention would be officially cancelled on September 15th if the regulations banning such gatherings had not been withdrawn by that date.

The management of the Hotel Pennsylvania agreed to this arrangement.

Early in the summer, the hotel, which had been planning a complete renovation of its Grand Ballroom and adjacent parlors on the Mezzanine Floor, obtained approval for the project. Work was begun with the understanding that all would be completed by Thanksgiving Day. Various difficulties of labor and material have interfered, and the Ballroom, which was to have been used for our general sessions, is not yet ready. In the meantime, came the sudden ending of the war in Japan and the relaxation of the convention regulations. A special request for permission to hold our annual convention was refused by the War Committee on Conventions late in August, and then, on September 12th, just three days before the dead-line set by the Executive Committee, the ban on conventions was removed entirely.

This statement is made by way of explanation, and perhaps apology, for the holding of these meetings in a not very convenient room on the 18th Floor, with elevator complications, instead of the much more commodious Ballroom on the Mezzanine, and for the fact that all arrangements for the convention had to be completed in a much briefer time than in previous years, with attendant delays in the distribution of notices and programs. It is particularly unfortunate that the detailed program of the meetings could not be delivered to you until last week.

It is now quite evident, that the program would never have been completed at all if it had not been for the loyal support and assistance of certain officers of the Association. At the meeting of the Executive Committee in September, when the difficulties were recognized, President David A. Robertson, Chairman of our Commission on Institutions of Higher Education, accepted responsibility for the program of the general session which will follow this morning; Principal George A. Walton, Vice-President of the Association, agreed to organize the program for the Friday afternoon session; and Dean Henry Grattan Doyle, President of the Association, planned the evening session on International Education. The Secretary, who has usually been responsible for all of the meetings, was directly concerned this fall only with the general session on Saturday morning. His deepest appreciation is herewith expressed to President Robertson, Mr. Walton and Dean Doyle, and he is confident that all present will echo his sentiments when they have enjoyed the excellent program during the remainder of the day.

Four meetings of the Executive Committee have been held since the last annual Business Meeting of the Association a year ago. As previously indicated, a major portion of the deliberations was

devoted to the discussion of plans for the holding or cancellation of the present convention. Other matters of interest will be presented in connection with the reports of the Treasurer, the two Commissions, the Committee on Post-War Guidance of Veterans and Civilians, and the special Committee on Accredited Courses and Institutions for Veteran Education, which was set up by the Executive Committee last November with President Gilbert Mead as its chairman.

An item of "unfinished business" to be presented for action by the delegates before the close of the present meeting is the proposd amendment to the Constitution of the Association by which the category of Associate Members will be eliminated. This proposal was originally announced by the Executive Committee at the 1941 Convention with notice that it would be brought to a vote at the 1942 meeting. The war having intervened, the Executive Committee reported at the 1942 Convention its decision to postpone final action until after the war. The proposed change in the Constitution will come before you with the unanimous endorsement of the Executive Committee and of the two commissions for vote by ballot.

At the meeting of the Executive Committee this morning the following actions were taken which should be reported at this time:

The Secretary was authorized to make arrangements with the management of the Hotel Pennsylvania in New York City for the 60th annual convention of the Association to be held on Friday and Saturday, November 29th and 30th, 1946. There is at present no hotel in Atlantic City with facilities adequate for the convention and the possibility of returning to the pre-war convention headquarters in Atlantic City, therefore, cannot be considered at this time.

The Executive Committee unanimously approved the recommendation which will be presented by the Treasurer for a change in the fiscal year of the Association, so that it will begin on September 1st instead of November 1st as at present. This recommendation has previously been endorsed by both of the Commissions.

The Committee unanimously approved recommendations suggested by the American Council on Education concerning draft deferment for young men training for scientific professions. These recommendations will be presented to the Association later this meeting by Dr. Harold A. Ferguson.

The Executive Committee unanimously appointed as representatives of the Middle States Association on the Committee for the Cooperative Study of Secondary School Standards the following: E. D. Grizzell, Chairman, Commission on Secondary Schools; Earl T. Hawkins, Maryland State Department of Public Instruction; Charles C. Tillinghast, Principal, Horace Mann School for Boys; Harold A. Ferguson, Principal, Montclair High School; Karl G. Miller, Secretary, Middle States Association.

Because of government restrictions, neither the North Central Association of Colleges and Secondary Schools nor the Southern Association held its regular meeting during the past year. Dean Henry Grattan Doyle represented the Middle States Association at the annual convention of the New England Association of Colleges and Secondary Schools at Boston last December, and Principal George A. Walton has agreed to serve as our fraternal delegate to the New England Association early next month. Dean Doyle also represented the Association at the Conference on Higher Education held at Yale University in May 1945, and Vice-Provost John M. Fogg of the University of Pennsylvania served as our delegate at the inauguration of President Anderson of the Pennsylvania College for Women last month.

In closing, your secretary expresses the fervent hope that the coming year will not only find peace firmly established in the world at large, but will also permit the Middle States Association to carry on its important functions without new and unexpected complications.

REPORT OF THE TREASURER
November 1, 1944 to November 1, 1945

Balance in Association Checking Account November 1, 1944	$ 928.34
Balance in Association Savings Account November 1, 1944	103.52
Amount from Savings Account Invested in Series "G" Bonds	4,000.00

Receipts	Budget *1944-45*	*1944-45*	
Dues, 868 Institutions	$ 8,900.00	$ 8,675.00	
Advance Accrediting Membership fees	150.00	130.00	
Certificates to schools		12.00	
Sale of Proceedings		67.35	
Inspection of Colleges	1,200.00	1,075.00	
Accrediting fees and evaluation		458.88	
Interest from Bonds	100.00	100.00	
Miscellaneous receipts		58.50	
	$10,350.00	$10,576.73	10,576.73
			$15,608.59

Expenditures					
Annual Meeting Expenses	$ 500.00		$ 571.52		
Proceedings & Association Lists	1,200.00	1,700.00	1,552.60	2,124.12	
Expenses of Members to					
Regional Meetings	220.00		108.01		
Other Meetings	10.00	230.00	313.53	421.54	
Executive Committee Meetings		200.00		170.42	
American Council on Education dues		100.00		100.00	
Commission on Higher Institutions		1,425.00		1,406.99	
Commission on Secondary Schools		5,500.00		5,801.56	
Secretary's Office					
Honoraria	500.00		500.00		
Corres. & Printing	100.00		42.60		
		600.00		542.60	
Treasurer's Office					
Honoraria	425.00		425.00		
Notary & Postage	95.00		65.00		
Bonding Treas. & Lockbox	28.60		28.60		
		548.60		518.60	
Miscellaneous				1.80	
		$10,303.60			$11,087.63

Deficit 1944-45	$510.90	
Balance in Association Checking Account November 1, 1945		417.44
Balance in Association Savings Account November 1, 1945		103.52
Amount Invested in Series "G" Bonds		4,000.00
		$15,608.59

BURTON P. FOWLER,
Treasurer.

REPORT OF THE AUDITING COMMITTEE

We have examined the accounts of the Treasurer, together with the accompanying vouchers, and find all to be correct as set forth, the balance in his hands being—

Checking Account	$ 417.44
Savings Fund Account	103.52
Series "G" Government Bonds	4,000.00

MARGARET TYLER PAUL,
BROTHER DAVID,
Auditors.

REPORT OF THE COMMISSION ON INSTITUTIONS OF HIGHER EDUCATION

FRANK H. BOWLES, *Secretary*

The Commission on Institutions of Higher Education submits the following report of its activities during the year 1944-45.

Institutions inspected for placement on the accredited list	8
Institutions placed on the accredited list	1
Reinspections of institutions now on the accepted list	6
Reviews of institutions now on the accepted list	3

The Delaware State College for Colored Students has been placed on the accredited list.

During the year past, the Commission has considered three problems relating to its primary task of maintaining a list of accredited institutions.

The first problem is that of criteria for accreditation. The Commission has felt the need of reinvestigation of its bases for accrediting and has appointed a Committee on Criteria under the chairmanship of Associate Commissioner J. Hillis Miller, to undertake that investigation. After two preliminary meetings, the Committee is now attacking directly the problem of isolating and defining criteria and has a first report in preparation for the spring meeting of the Commission.

The second problem is that of the accreditation of specialized institutions. The Middle States include within their geographical boundaries institutions offering programs leading to degrees in such varied fields as horticulture, textiles, optometry, and sacred music. The question of the accreditation of such programs is constantly before the Commission, and has so far remained without satisfactory answer. A sub-committee of the Commission under the chairmanship of President Levering Tyson has, in its first report, made it sufficiently plain that no solution to this particular accrediting problem is to be found in a simple refusal to deal with it. The problem is now jointly before the Committee on Criteria and the Committee on Specialized Institutions, with a heavy responsibility resting on the first-named Committee to isolate, if it can, criteria for accreditation which will prove equally valid for all types of institutions.

The third problem before the Commission, a perennial of some years' growth, is that of accreditation of foreign institutions. The Commission has already gone outside the continental limits to accredit institutions in Puerto Rico and the Canal Zone. Requests have come to it on several occasions for accreditation of institutions such as the American University of Beruit, the American College of Sofia, the

American College of Athens and other colleges conducted in foreign countries under American auspices. To date the Commission has felt that the difficulties in the way of accrediting far outweighed the advantage that might accrue, and has, therefore, declined to act on any of the requests.

The Commission regrets to report the resignation of President Byron Hollinshead to accept the presidency of Coe College. Dr. Hollinshead's specialized knowledge of junior colleges has been of inestimable value to the Commission, and his departure will be felt keenly.

REPORT OF THE COMMISSION ON SECONDARY SCHOOLS

IRA R. KRAYBILL, *Executive Secretary*

Mr. President, Ladies, and Gentlemen: With your kind permission, I shall keep the statement of the statistical report as brief as possible, asking that the tables be published in the Proceedings. Briefly, Table I shows that there are now seven-hundred-twenty-two accredited schools on our List. Seventeen new schools were considered; thirteen were accredited and four were not accredited. Of two-hundred-forty-one old schools considered, two-hundred-thirty-five were accredited and six old schools were dropped. This makes a total of two-hundred-fifty-eight schools considered, of which two-hundred-forty-eight were accredited, which added to the four-hundred-seventy-four old schools on the List makes a total of seven-hundred-twenty-two schools on the List for 1946. Table II shows the new schools which were accredited in November 1945. Table III shows the growth in the Accredited List from 1941 to 1945. The number of schools now on the List is larger than at any previous time. Table IV concerns the evaluation of schools. Three-hundred-ninety-three old schools and eighty-seven new schools have been evaluated since 1939. That makes a total of four-hundred-eighty schools which have been evaluated according to the Cooperative Study of Secondary School Standards. During the year 1944-45, seventy-four old schools and fourteen new schools were evaluated. There remain on the List of Accredited Schools two-hundred-fifty-two schools which have not yet been evaluated according to the standards set by the Cooperative Study.

At its last meeting, the Commission adopted a resolution that all schools now on the List which have not yet been evaluated be required to do so by 1950.

Thus far, sixty-seven applications for evaluation have been received for the year 1945-46. Of these, forty-five are old schools already on the List and twenty-two are new schools applying for the first time. These figures, however, are subject to change by additions and by requests for postponements.

During the past six years, the program for evaluation has proceeded steadily. Although schools have been accredited on the original standards, the time seems to have come for a revision of standards in line with the newer procedures of evaluation. This is one of the important pieces of work to be done during the current year.

The chief work of the Commission divides itself naturally into two phases, accreditation and evaluation. In the early years of the

Commission, most of the attention was paid to accreditation, as was natural. With the use of the Evaluative Criteria, however, the process of evaluation has become more important than formerly. At the present time, accreditation is a natural out-growth of evaluation, which is as it should be. The most important work of the Commission is this program of evaluation, which can serve as a means of stimulation and encouragement. It is indeed gratifying to see in how many schools this stimulation has brought tangible results.

In the process of necessary changes which came about because of this method of evaluation, new procedures are being used to encourage schools to strengthen their programs at points where the need is greatest. Instead of the progress reports and the full reports which were asked for at intervals, the Commission is now asking for area reports on the original blanks of the Evaluative Criteria. Thus a school which was good in every area and low, let us say, in Pupil Activities or Guidance might be requested within a year or two to submit a self-evaluation on a Pupil Activities Blank or a Guidance Blank to see what the situation is in the school after a lapse of a year or two. It is hoped that these requests will be more easily understood and that the reports which will be made will be more complete and more searching than those which have hitherto been accepted. The Commission will watch with interest the results of this new procedure.

Last November, at its annual meeting, the Association unanimously adopted a recommendation of the Commission that a charge be made for preparation of the report and for advisory service. So far as can be seen, these charges have had very little, if any, effect upon the number of schools which have applied for accreditation. It does supply the Commission with funds to do work which, for a number of years, had to be done on a budget far too limited for the efforts which had to be made.

Mention should be made, as has been done before, of the truly cooperative nature of the work in which we are engaged. In the eighty-eight schools which were visited by committees last year, eighty-eight chairmen made reports. In nearly every case, these reports were carefully drawn and represented a great deal of professional labor and thought. In addition to the chairmen, a total of approximately one-thousand persons served as members of committees visiting these eighty-eight schools. The Commission is especially grateful for the nearly unanimous cooperation which has been given by higher institutions in our area. The presidents of these institutions have most generously released members of their staffs for work on the visiting committees. The only reward for this volunteer service was the deepening insight into the problems of the Secondary School which

was gained by the participants. Not the least of the gains which should be registered is the increased sense of solidarity which has steadily been growing between public, independent, and parochial schools on the one hand and the colleges on the other. We are beginning to give more than lip service to the idea that education is a continuous procedure.

I trust that I may be forgiven for interjecting a personal note. The work upon which I have thus far reported was nearly all done under the sponsorship of my predecessor, Dr. T. E. McMullin and under the wise guidance of your Chairman, Dr. E. D. Grizzell. Mention should also be made of the work of Mrs. Wilhelmina J. Paul in the office. Some of us who have known about the work of the Commission have never ceased to wonder how the Commission could do so much work on so small a budget. It was done by the faithful and devoted work of the Chairman and of the office personnel. If I may be allowed to paraphrase the most quoted remark of the most famous English statesman of our generation, I should say that "seldom in Secondary Education have so few with so little done so much." It is the earnest hope of your speaker that he may carry on the fine work which has been done in the past twenty years.

TABLE I

ANALYSIS OF ACCREDITED SECONDARY SCHOOLS, JANUARY 1, 1946

	New Schools Considered	New Schools Accredited	New Schools Not Accredited	Old Schools Considered	Old Schools Accredited	Old Schools Dropped	Total Considered	Total Accredited	Old Schools Not Considered Basic List	Total Schools Accredited on List of Jan. 1, 1946 (19th List)
Delaware	—	—	—	13	13	—	13	13	12	25
District of Columbia	1	1	—	13	13	—	14	12	17	31
Maryland	—	—	—	13	12	1	13	12	35	47
New Jersey	7	5	2	56	54	—	63	59	114	175
New York	5	5	—	36	34	2	41	39	113	152
Panama Canal Zone	—	—	—	2	2	—	2	2	—	2
Pennsylvania	4	2	2	108	107	3	112	109	182	289
Europe	—	—	—	—	—	—	—	—	1	1
Total	17	13	4	241	235	6	258	248	474	722

TABLE II

NEW SCHOOLS ACCREDITED NOVEMBER 1945

DISTRICT OF COLUMBIA		
Devitt School	2955 Upton St., N. W. Washington 8	Dwight C. Bracken
NEW JERSEY		
Academy of St. Elizabeth	Convent Station	Sister Marie Josephine
Fair Lawn Jr. Sr. H. S.	Fair Lawn	Milford Franks
(Miss) Fine's School	Princeton	Miss Shirley Davis
Newton High School	Newton	Ralph M. Hutchison
Sayreville High School	Sayreville	John E. Lyons
NEW YORK		
Chaminade High School	Mineola	Louis J. Faerber, S.M.
Holy Angels Academy	24 Shoshone Drive Buffalo 14	Sister Regina Marie
Nazareth Academy	1001 Lake Avenue Rochester 13	Sister M. Hubertine
Our Lady of Mercy H. S.	1437 Blossom Road Rochester 10	Sister M. Francesca, R.S.M.
Rockville Center South Side High School	Rockville Center	J. Dale McKibben
PENNSYLVANIA		
Shaler High School	Glenshaw	Miss Mary Ruth Jeffery
Upper Moreland Twp. H. S.	York Road & Cedar Avenue Willow Grove	I. Newton Cowan

TABLE III

THE ACCREDITED LIST 1941-45

	1941	1942	1943	1944	1945	1946
Delaware	25	25	25	25	25	25
District of Columbia	30	31	31	30	30	31
Maryland	47	48	48	48	48	47
New Jersey	164	164	167	169	170	175
New York	168	161	160	152	149	152
Panama Canal Zone	2	2	2	2	2	2
Pennsylvania	273	277	283	285	290	289
Europe	1	1	1	1	1	1
Total	710	709	717	712	715	722

TABLE IV

EVALUATION OF SCHOOLS, JANUARY 1, 1946

	1939-40—Old	1939-40—New	1940-41—Old	1940-41—New	1941-42—Old	1941-42—New	1942-43—Old	1942-43—New	1943-44—Old	1943-44—New	1944-45—Old	1944-45—New	July 31-Dec. 1—Old	July 31-Dec. 1—New	Total—Old	Total—New	Grand Total	Old Schools to be Evaluated
Delaware	4	1	3	0	2	0	1	1	1	0	4	—	0	0	15	2	17	8
District of Columbia	2	1	4	0	5	1	3	0	4	0	6	—	1	0	24	2	26	5
Maryland	4	2	3	1	1	1	4	0	0	0	4	—	0	0	16	4	20	18
New Jersey	8	—	19	2	29	4	19	2	15	4	22	7	1	2	112	19	131	46
New York	1	3	13	3	17	4	14	0	10	4	12	4	2	2	67	18	85	70
Panama Canal Zone	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—	2	—
Pennsylvania	12	8	44	13	33	7	29	4	15	7	24	3	2	4	157	42	199	104
Europe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Total	31	15	86	19	87	17	70	7	45	15	74	14	6	8	393	87	480	252

REPORT OF THE COMMITTEE ON POST-WAR COUNSELING OF VETERANS AND CIVILIANS

ARTHUR J. JONES, *Chairman*

This committee was appointed by the Executive Committee in March, 1944. In the report of last year statements of fundamental principles were outlined, recommendations made, and activities of colleges and secondary schools were reported. These were printed in the proceedings.

The work of the committee since that time is here briefly outlined.

Since the interests of the Eastern Association of College Deans and Advisers of men were closely related to the work of the committee, it was decided to enlist their cooperation. It was found that they were very favorable to such cooperation. Accordingly two members of this organization were added to our Committee. Dr. L. Forrest Free and Edward M. Twitmyer, president and secretary of that organization.

Two projects were discussed and approved:

(1) A bulletin on the Preparation of Counselors of Veterans.

(2) A bulletin on Administrative Organization in Colleges and Universities for the counseling of Veterans.

The first bulletin consists of two parts; Part I, How to Move a College Off Its Hill, was designed to stimulate colleges to organize programs for the training of counselors and was prepared by Morse A. Cartwright. Part II, The Preparation of Counselors for Returning Veterans, prepared by Arthur J. Jones, was an outline of suggestions for a program for the training of counselors.

Through the helpful cooperation of Francis J. Brown, this bulletin was issued as Bulletin No. 86 of the series of bulletins on Higher Education and National Defense by the American Council on Education, July 7, 1945. Copies of this have been distributed to every member of the Association.

It is not possible to estimate what effect this bulletin has had. A number of letters have come to the chairman and these have been answered as well as possible. That the need for trained counselors is still very great, there can be no doubt. We can only hope that many universities have seen the need and have organized programs for counselors.

While our chief effort has been centered upon the returning veteran, we are deeply conscious of the needs of the thousands of

civilians dislocated by the problems of reconversion and the needs of the youth who are graduating from our secondary schools. Both of these groups need assistance; many of the youths are of good college material and should be given assistance in deciding whether to continue their education and what type of institution they should attend and, perhaps, most important what institutions will admit them. These problems we hope to consider later on.

The second bulletin, Administrative Organization in Colleges and Universities for the Counseling of Veterans, prepared by Frank H. Bowles, L. Forrest Free, and Edward M. Twitmyer, is nearly ready for publication. For a statement regarding this I will call upon Mr. Bowles.

(Mr. Bowles stated that "the report of the subcommittee has been repeatedly reworked during the past three months on the basis of experience coming from veteran contacts, is now completed and will be distributed at an early date. It is, unfortunately, too long to be read at this time.")

COMMITTEE ON ACCREDITED INSTITUTIONS AND COURSES FOR VETERANS

GILBERT W. MEAD, *Chairman*

At the first meeting of the Executive Committee for the present year, communication was received from Dr. George F. Zook, President, the American Council on Education, asking that a study be made of policies of the various states in our region in the accrediting of schools, colleges, and other organizations for training which are offering or will offer courses for veterans under the G. I. Bill.

It was understood that similar requests were being made to other regional accrediting associations so that the study would be countrywide. The reason for the request is seen in Dr. Zook's letter, in which he says:

"This situation is a matter of concern because there is no assurance that the educational interests of the veterans will be protected in the states that follow a very liberal policy. Moreover, such a policy opens the way for giving immediate recognition to institutions which will capitalize to the utmost on the status accorded them."

Our Association has extended its cooperation to Dr. Zook by the appointment of such a committee, consisting of Dean Doyle *(ex-officio)*, Dr. Robertson, Dr. Grizzell, and Dr. Mead (Chairman).

When the committee first met in Washington, it had the assistance also of Mr. A. J. Brumbaugh of the American Council, representing Dr. Zook.

Correspondence was initiated immediately with the chief educational officers of the states in our region, and the District of Columbia.

From all were ultimately received statements of policy, and assurance of their awareness of the possible dangers in the situation and of their desire to protect the veteran from exploitation. It would appear that in all cases sufficient machinery is provided for certifying or licensing as to be a real protection, and a strengthening of current practices has been taking place in some, with public notice to would-be educational racketeers that they will not be treated lightly.

The procedures of our Association are honored by these educational officers and by the Veterans Administration in the case of institutions of a type which we accredit. There are, however, other sorts of training courses and institutions to which veterans may be attracted, the licensing of which rests with the state educational authorities. We are on record as favoring strictness in examination before licensing, and a demonstrated high standard before acceptance.

The Committee later addressed a letter to General Omar D. Bradley, as head of the Veterans Administration, explaining our interest and extending an offer of our further cooperation. A lengthy reply from his office says, among other things:

"The appropriate agency of the State approves the institution, and it is the policy of the Veterans Administration not to exercise the approval authority conferred on it except under extraordinary circumstances."

The reply states further:

"It is presumed and expected that the designated approving agency of the state will approve only such institutions as are fully qualified and equipped to give good courses of instruction and are otherwise satisfactory on the basis of current inspection, well established service and reputation to furnish effective education and training. It is further presumed that the state approving agencies themselves will maintain such supervision and training institutions as may be needed."

It is evident to your committee that all state educational offices in our area are aware of our deep and active interest, and are aware of the necessity of close and careful supervision to avoid any exploitation of the veteran; and some, as for example Pennsylvania, have adopted new and more stringent measures of licensing control.

While a continued vigilance is advisable, it seems that at present all concerned are conscious of the possibilities of danger, and this Association is maintaining an attitude of wakefulness and cooperation.

PROPOSAL FOR DRAFT DEFERMENT OF PRE-PROFESSIONAL GROUPS

In behalf of the Executive Committee, Dr. Harold A. Ferguson presented a communication from the American Council on Education, entitled "Statement Regarding the Imperative Resumption of Deferment for Training for the Scientific Professions." This statement calls attention to the loss of "almost one complete college generation of young scientists in the chemical and technological fields" and the danger of additional loss of students preparing for medicine, dentistry, osteopathy, pharmacy, engineering, physics, chemistry and certain other fields unless immediate action is taken to re-establish student deferment.

A series of specific recommendations are made, including, (1) that the present policy of deferring men already enrolled in schools of medicine, dentistry, and osteopathy be continued, and that pharmacy be added to this list; (2) that approved schools of medicine, dentistry, and osteopathy be authorized to certify for deferment for pre-professional study 75 percent of the freshman enrollment of 1939-40; (3) that approved colleges be authorized to certify for deferment a number of men equal to the number graduated in 1939-40 with majors in agriculture, biology, chemistry, engineering, geology, pharmacy, physics, and psychology; (4) that deferment for training be recognized as equivalent to assignment to service, and continue as long as the individual continues in full-time study; (5) that the Selective Service System be directed to put this program into effect immediately.

These recommendations were presented by the Executive Committee for adoption by the Association, with the addition of a recommendation for draft deferment for those preparing for the teaching profession; supported by the following statement:

> *Education.* Due to the loss of teachers during the war emergency there is urgent need to provide and maintain an adequate teaching and administrative personnel for the schools and higher institutions of the nation. The loss during the war emergency in the elementary and secondary schools alone was approximately 30 percent of the total personnel.

After discussion from the floor, during which it was explained that the recommendations under consideration refer only to the present Selective Service System and not to any plan of compulsory military training which might later be adopted, the recommendations of the Executive Committee, having been properly seconded, were put to a vote and adopted by a large majority. The Secretary was

instructed to transmit notification of this action to the American Council on Education, the Director of the Selective Service System, and the Director of the Office of War Mobilization and Reconversion.

A MINUTE IN APPRECIATION OF WILLIAM MATHER LEWIS

We, the members of the Middle States Association of Colleges and Secondary Schools, wish to record our sorrow at the death of William Mather Lewis, formerly president of our Association, for eighteen years the able and distinguished President of Lafayette College. All his life since graduating from Lake Forest College in 1900 he had devoted his efforts ably and effectively to the cause of education. It is not necessary in this resolution to record the many positions of trust he has held, the many honors which have been paid him. These appear more appropriately elsewhere.

Rather we wish to pay our tribute to him for his long record of public service; for the high character of his endeavors and the success which consistently rewarded them; for his forceful influence for sound progress in American education. He was endowed with the gifts of straight thinking and of eloquent expression. His philosophy of life was rich with sincerity and with freedom from affectation, and was enlivened with a whimsical sense of humor. His friends have always found him a man of high ideals, unimpeachable integrity and good companionship. His friendliness will long remain in our memories.

To his widow and daughter we offer these expressions of our sympathy and our affectionate tribute to one who has held a place of his own in our admiration and our respect.

Robert C. Clothier

AMENDMENT TO THE CONSTITUTION

A proposal to amend the Constitution of the Association so as to eliminate Article II, Section 2, and thus discontinue the classification of associate member institutions was presented by the Secretary in behalf of the Executive Committee. The proposal had previously been endorsed unanimously by the Commission on Institutions of Higher Education and the Commission on Secondary Schools.

Article II, Section 1, of the Constitution, which remains unchanged, reads as follows:

> "Any institution or secondary school accredited by the appropriate commission, or the office of any State or local department of public education or of any system of parochial and private secondary schools, or any other educational organization within the States of New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia may be received into active membership in this association upon approval of the Executive Committee."

Article II, Section 2, which it is proposed to eliminate, reads as follows:

> "Any higher institution or secondary school not accredited through the appropriate commission, may, upon approval by the Executive Committee, be elected to associate membership with the privilege of attending the annual meetings and receiving the Proceedings, but without the right to vote."

Article XI, Section 1, which provides for changes in the Constitution reads as follows:

> "This constitution may be amended at any regular meeting by a vote, by ballot, of two-thirds of the institutions represented at said meeting, provided the executive committee has been notified, through the secretary, of such proposed alteration or amendment at least sixty days prior to the meeting."

The procedures specified in Article XI, Section 1, which provides for changes in the Constiution, have been followed. The proposal to eliminate the classification of associate member institutions was originally presented by the Executive Committee at the annual convention in November 1941, with notification that it would be presented for action a year later. Because of the war, the Executive Committee announced at the 1942 convention that a vote on the proposed amendment would be postponed until after the war. The Secretary stated that the Association now has a membership of approximately nine hundred schools and colleges and that only twenty institutions, including fourteen secondary schools, two junior colleges,

two teachers colleges, and two liberal arts colleges now hold associate membership.

The vote was taken by written ballot with the following result: in favor of the elimination of Article II, Section 2, sixty-two colleges and eighty-three secondary schools; opposed to the proposed amendment, two colleges and two secondary schools; one ballot declared invalid because both alternatives were checked. On the basis of this vote, Article II, Section 2, of the Constitution providing for associate membership is eliminated, with one-hundred-forty-five affirmative and four negative votes.

REPORT OF THE NOMINATING COMMITTEE

As Chairman of the Nominating Committee, Principal Harold A. Ferguson of the Montclair High School, presented nominations for the election of Officers, Executive Committee, and Commissions for the coming year. There were no nominations from the floor and the Secretary was instructed to cast a ballot for their election. The list of Officers, Committees, and Commissions is to be found on earlier pages of this publication.

MORNING SESSION

FRIDAY, NOVEMBER 23, 1945

THE CONTINUING EDUCATION OF ADULTS

GEORGE V. DENNY, JR., *President,* The Town Hall, Incorporated

I suppose I ought to be scared to death here talking before a group of educators because I have been out of what has been known as the conventional educational line for some time. But I have been in a field that I hope you will enter upon more vigorously than you have in the past. Another title for my talk might be, "Come on in, the Water's Fine" because I want to get more and more people into this pond that I am swimming around in with very few others, unfortunately.

I suppose you are all familiar with the definitions of "adult education" of one kind or another, but I am going to take for granted that at least a handful of you have not heard the sophomore's two definitions of "adult" and of "education."

The adult, the sophomore says, is "one who has stopped growing everywhere except in the middle" and he says that, "education is that process by which knowledge is transferred from the textbook of the teacher to the notebook of the student without going through the mind of either."

Now, that we have defined our terms, let us get down to business. My title this morning is "The Continuing Education of Adults" but I am also reminded of a talk I made out at Denver about two years ago when the secretary of the Chamber of Commerce there asked me what my topic would be.

"Well," I said, "how about 'Freedom of Speech in Wartime'?"

"That's very good, Mr. Denny," he said, "but couldn't we have a topic that would be of a little more interest to men?"

I said, "All right. How about this one: 'Will Free Enterprise Survive the War'?"

"That's bully," he said. "We will get you a great crowd for that."

"All right," I said. "That's fine. It will be the same talk anyway."

So, no matter what my title is, I have got to get around to telling you about why we are doing what we are doing at Town Hall, and I take it that is essentially why you asked me to speak here today. If I have anything to contribute, it is as a result of my experience in adult education.

I think, my friends, you will all agree on this point: That there has never been a time in the history of the world when it has been

possible for the mind of man to reach out and gain a greater knowledge of the world around him than it is today. Yet, paradoxically enough, we have never been more bewildered and confused, especially as regards our social and human relationships. It is not to be wondered at, of course, because at the beginning of this century, when I first saw the light, we were a nation of communities not more than 25 miles in diameter. Why? Because of our system of transportation. The old grey mare couldn't go much more than 12½ miles in a day and return, and we were circumscribed by our means of transportation. We lived, ate, thought, dreamed largely in the area of these little neighborhoods 25 miles in diameter except, of course, for the pioneers who made their way across the new continent.

Well, along came the railroad, the automobile, good roads, and the airplane, and within a period of 30 to 40 years we crushed the surface of the earth so completely that today we live in a neighborhood 25,000 miles north, east, south and west.

This funny human organism with a brain at the end of the central nervous system has scarcely had time to adjust itself to these astounding and astonishing facts of physical three dimensional progress.

It is no wonder, then, that we are bewildered and confused. The longer we deny the facts of life and hesitate to adjust our religious, educational and social and political systems to these facts of life, so long is the human race in mortal danger of absolute destruction.

My old geology professor used to begin his lectures—some of you may remember old Collier Cobb at the University of North Carolina—with a broad grin from ear to ear. "Well, you men, I want you to know that the first lesson of geology is, we are largely what we are because we are where we are, and that goes for folks as well as rocks."

Yes, I do not suppose that even you here in this room, educators that you are, have entirely resolved that dilemma of which is more influential, environment or heredity.

Here is one example which I would like to give to you of the power of the environmental influence. Here is a ball. What color does that ball appear to you, please?

DELEGATE: Blue.

MR. DENNY: How does it look back there?

DELEGATE: Black.

MR. DENNY: That is right. From your point of view it is either blue or black. It looks black from your point of view and you must rely upon the power of your senses.

Yet, from my point of view it is absolutely white. If you insist that what you see is right and I insist that what I see is right, we cannot get anywhere. You may overpower me by the power of ballots, because there are more of you, because you could out-vote me, or you could overpower me physically. It would not, however, change the fact that the ball is both black and white, as we see as we turn it around.

Now, the tragedy is that we cannot turn our problems around as readily as we can turn this little black and white ball around, because you are bound by all of your yesterdays right up to this instant—heredity, environment, education, everything—in how this ball looks to you, rather how the problem it represents looks to you.

I am bound by all of my yesterdays, right up to this instant, in how the same problem looks to me. Try as we may, we cannot get on the opposite side of the ball except in one way, and that is by honest discussion with integrity of purpose and mutual respect.

Honest discussion with integrity of purpose and mutual respect. There is no place for the liar in the world today. Let us make that clear. A man who lies or distorts in the field of social science today is a real enemy of society. Whether that man be an individual or a part of a nation that practices the lie, that man, or that nation, is an enemy of civilized society. We cannot have an orderly society without integrity of purpose and mutual respect among individuals or nations. This is the only way for us to resolve our social, economic and political problems—our human problems, if you please.

We had freedom of speech, freedom of discussion, freedom of education prior to the Civil War, but what did we do? The hot-heads of the north talked to the people who agreed with them and the hot-heads of the south, to the people who agreed with them, and what was the result? Civil War.

There was no attempt whatever to use freedom of discussion, freedom of education, freedom of religion to help resolve the problems that confronted the nation at that time.

Do you know what saved us from the same thing in this war? The attack by Japan on Pearl Harbor.

We were doing exactly the same thing prior to Pearl Harbor. Some of you may have attended, because you are educators, both the meetings of the America Firsters and the organizations for aid to the allies—the interventionists and the isolationists, as they were called. If Mr. Willkie and Dorothy Thompson and Mr. LaGuardia went to a town and put on a rally, the people who agreed with them came out to hear them. Two weeks later, the isolationists, maybe Senator Wheeler, maybe Mr. Lindbergh, maybe Senator Nye, held their meetings in the same community in the same hall. Did the same

people come out? Not at all. The people who agreed with them came out to hear them. And with what result? We widened the cleavages in each community, set group against group and class against class, and were the silly dupes who operated Hitler's "Divide and Conquer" technique for him just as effectively as if we had been paid Nazi agents!

My friends, today we stand in the same danger with the critical economic, social and political problems that we face at the end of this war. It is happening already.

It doesn't take boldness to point out that a part of the trouble with the strikes today which are besieging this country is laid squarely at the door of both sides, or either side, that won't sit down at the table and reason together about these problems, because:

First, there are people who sit in their pine paneled or walnut paneled offices and nurture and console each other about their particular viewpoint and call the other party names, while the other party hold meetings in their halls, nurture their wounds, cultivate their prejudices, and call the other party names. Is that a constructive way to use freedom?

Any one of those men who is engaged in management would fire the research department if they came in with conclusions that were obviously designed just to cultivate the prejudices of the management and did not stand up under the test of experimentation.

Now, why all this confusion? Why all this abuse of freedom?

I think there is a clearcut explanation for it and you and I have a dreadful responsibility in this regard.

Five hundred to one thousand years ago our men of science were having a dreadfully uphill fight to walk up to the forces of nature in this three-dimensional world and report honestly on what they saw.

They were accused of witchcraft, folk tales and superstition by the people who were the conservatives then. They fought to hold them back, from Galileo right up to Steinmetz; the men of science who have tried to lead and show the others the way and have had a terrible battle against the conservatives.

But in spite of the battle that they had, they kept up their fight. They persisted until they developed the sciences of physics, chemistry, botany, biology, astronomy, and on those sciences they built the machine age. And the final culminating invention was the atomic bomb!

Isn't that a glorious use to put to all of the creative genius of generations past? The atomic bomb, a weapon that can wipe out a million people at one blow!

I remember Mr. H. G. Wells was being chided by my friend S. K. Ratcliffe a number of years ago upon being pessimistic in his book, "The Shape of Things to Come."

"Pessimistic, old chap?" he said. "Not at all. I was exceedingly optimistic. I let the human race survive. Just what reason have you to assume that man will continue to inhabit this earth? Other animals have become extinct because they did not learn how to use their brains for survival."

Remember the dinosaur? He had a tiny little brain in a huge body and he became extinct. He knew how to fight, but he could not adjust himself to change, climatic change, that is—so now the dinosaur is extinct.

Well, look at us. We have magnified the power of the human hand ten thousand fold. We can destroy a million people with the turn of that hand, as did that Army Major when he destroyed 25,000 people in Hiroshima. What a glorious achievement!

But how did it come about? It came about because men persisted in looking honestly at the facts as they saw them—and used their minds honestly—in the three-dimensional world.

Over here in the realm of human relations we are where we were a thousand or two thousand years ago. We are not using our minds honestly in the realm of human relations. Whose fault is it?

I am talking to a group of educators. Whose fault is it that we are not using our minds honestly in the realm of human relations? Well, never mind whose fault it is. We know what the job is before us.

Mr. Wells has stated, very dramatically, that it was a race between chaos and education. Do you think, my friends, that we are going to get anywhere if we sit back in our conservative luxury and continue to educate people only up to the time they are 21 in little four year units of high school and college?

I say to you, my friends, we are not a literate people. We are not literate because we have not learned the rules of getting along together and we are playing with dangerous enough toys to make that illiteracy the most dangerous thing in the world.

I have been fighting a losing battle during these past 3½ years with my friends down in Washington in the War Department who are doing such a marvelous job teaching our young men how to use these great new instruments of physical destruction, pointing out to them that they are not teaching these young men how to use far more dangerous weapons, ideas. The British have the jump on us here, with their Army Bureau of Current Affairs. It was my privilege in the Fall of 1943 to go to Britain and travel all over the country meet-

ing with these people. I went to 33 different groups and saw what they were doing in teaching the young and old men in the British Army how to deal with current affairs.

It is a new technique, yes. Some of you more traditional and conservative educators would throw up your hands in horror at it. I have had some of my educator friends say to me, "Oh, you can't have education unless it has continuity and it must be under the same instructor. It is not education unless you can follow through as long as a quarter or a semester."

I say it is education if it teaches people how to get along with their fellow man. It is education if it opens the minds of men and women and teaches them how to deal with ideas in this world that is gradually being pulled down around our heads. I am talking about the education that helps individuals to adjust themselves to the facts of life in the world in which they live. And it doesn't have to be in textbooks or conventional college classes.

When I was doing that job at Columbia University with my friend Levering Tyson, whom I see over there, I got some of the educators to give me a number of definitions of "education" and we got some very good ones. None of them, it seems to me, quite expressed the situation as well as Dr. Chase's definition.

Dr. Harry Woodburn Chase, now Chancellor of New York University, said, "Education is the process of developing a personality at home in the modern world."

Of course, I suppose if he is at home in the modern world, he is surviving. I would modify that by saying that education is the process of training and developing human beings who can survive in peace and with a measure of happiness in the modern world.

We are in danger of extinction, my friends, and we cannot seem to get that horrible fact through our heads. It is partly the fault of the church, it is partly the fault of the politicians. When we say that, it is partly everybody's fault because in one way or another we are all more or less identified with some one of these three things. Even the businessmen elect the politicians and they usually elect the church boards and have something to do with educational institutions through boards of trustees, and so on.

Well, what can we do about it as educators? I would like to attack the problem from two points of view:

First, from a purely business point of view, all of you here represent educational institutions that are ministering largely to the needs of human beings within a four year span of life. Maybe it is 18 to 21, maybe it is 14 to 18; but whatever it is, you represent an educational institution.

Now suppose from a business standpoint I could show you a way where, instead of just having a market, let us say—let us put it in strictly commercial terms—a market for people for a period of only 4 years, you could expand your market and bring in millions of other people and have a market that extends over a period of from 40 to 50 or even 60 years?

Well, it would be good business, would it not? It would be good business, and you can do it. There have been numerous experiments that all of you are familiar with if you've studied the movement for adult education in this country. There are very practical means by which you can expand your market from a business standpoint. Nor is it necessary to sacrifice your educational integrity in order to increase your market.

What about the other standpoint? Your obligation to the community and to the nation and to yourself? Isn't it true, my friends, that whether we like it or not, our welfare is tied up with the welfare of every other human being—not only in this country but throughout the world? Do I need to labor the fact that whether we like it or not we are no longer just members of our community, state and nation, but we are citizens of all the world and members of the human race? Isn't it necessary for us, then, to think in these terms?

Well then, just from that point of view we ought to be compelled to make our resources, not only in terms of our libraries but in terms of our teaching staffs as well, available to the people who need it most. I mean the adults who are making the day to day decisions in our democracy.

Now we face during the next ten years the necessity of making the most important decisions as a people—as a nation—that have ever been made before in the history of the world by so large a group. This nation—America—is at the height of its power and influence. Not only is it the richest, not only the most powerful politically but the most powerful physically and it is the largest nation, of course, with a free system of information and education; free and relatively uncontrolled.

Then the decisions that we make, and the decisions that we fail to make, will affect the course of the history of the world more profoundly than any other decisions made by any other comparable group since this country was founded.

But certainly the necessity for our finding the right answers has never been more compelling at this moment because all of the unsolved and wrongly solved problems of generations past are closing in on our moment of history demanding solution: the race problem, the tariff problem, all of the problems suggested by the Atlantic

Charter, the problems of management and labor, the distribution of natural resources, fascism, communism; they are all just parts of the problem of human relations for which we have got to find a solution if we are not going to revert to war.

War means the annihilation, or the relative annihilation, of the human race. If not annihilation, then something a great deal worse. I doubt if there is a man or a woman in this room who would not prefer death to living under a rigidly controlled dictatorship. I am sure I would, knowing the nature of dictatorships and the kind of dark ages that will undoubtedly follow another war.

It is a pretty black picture and it is not too soon, my friends, for us to begin to realize our responsibility and to stop paying lip service to a sentence which I have heard pronounced over and over again by educators and businessmen alike, "Well, it is a problem of education."

If it is a problem of education, then let us get busy. It is also a problem of religion, and religion and education have got to get down into the market place. It is not enough for us to sit up in our Olympian towers on our various campuses around the world and insist that the people come to us and take education on our terms. We have got to go out and get them. We have got to use radio. We have got to use the movies. We have got to use pamphlets and we have got to use an approach with the spoken word that Joe Doakes and John Doe and GI Joe can understand.

I've been reading a certain book—the Harvard Report—not too bad, but I do not suppose it was written for GI Joe. If it was, I don't think he would get beyond the second page.

The language that we can use in the field of education is amazing. We are dealing with a nation of 130 million people who are influenced day by day by the printed word, the spoken word, over the radio and through pictures on the screen and in magazines. The influence of one movie, in terms of the social impact on the life of individuals of this nation today is easily equivalent to what all the colleges and universities of the country do in one year!

My friends, the time has come when we have got to realize the terrible responsibility that rests upon us as educators and as religious leaders of this nation.

I believe it was Matthew Arnold who described education as "the best that has been thought and said in the world." Last night eighty-two young men—and I think some women—were caught in a police dragnet here in New York; potential criminals. Do you think they have been adequately exposed to "the best that has been thought and said in the world?"

We are experiencing all over this nation one of the greatest crime waves that we have had since after the last war, and it looks like it is going into something a great deal worse.

I was out in Los Angeles for most of the past summer and every day the Los Angeles Times printed the Crime Box Score in the City of Los Angeles alone. They listed so many murders, so many muggings, so many cars stolen, so many burglaries, so many pick-pockets, and so on. Are those people being exposed to "the best that has been thought and said in the world?"

I would like to suggest to you that we raise our sights and become more ambitious and more fearless than we have been in facing the tasks before us as educators.

We are a timid lot, we educators. We are afraid to get out there in the market place. But remember what one man did? Remember what one good man and one evil man did? Let me cite them both in the same paragraph. One good man who believed in his ideals and died on the Cross and one evil man who brought the whole world down around his head because he believed and practiced what he preached. Yes, I am talking about Christ and about Adolph Hitler.

There is not anything we cannot do if we have enough faith in ourselves and believe in the rightness of our cause. The trouble with us is that we are a lot of hypocrites. We say one thing and practice another.

Look at the politicians today. And remember, we elect them! They mouth beautiful ideas and ideals about brotherly love and world fellowship and world organization; then act as if we relied on nothing but force.

I was present at the San Francisco Conference. My heart was sick at what I saw transpire out there. I went out on the press train with the men who would cover it. I had a number of talks with my friend Emory Reeves who has written a book which you all should read if you have not read it, "The Anatomy of Peace." He was terribly pessimistic. He said, "They'll never get together a document that will work out here. It will be a 'sell-out'. It just won't work." He argued with me for a day and a half. I tried to cheer him up with the kind of arguments I heard the men from the State Department using, "Well, it's a step in the right direction. Let's try it."

When I got out there and saw what actually happened, I realized that Emory Reeves was right; that our leaders did not have faith in the principles that they were advocating. They were talking world organization and faith in democracy and the principles of democracy, but they compromised at every turn with expediency, for

two reasons. What were they? They said the United States Senate would not pass a stronger document. Nobody defended the San Francisco Charter on the grounds that it was right, or sound or wise or just. They just said, "It is a step in the right direction," or "We have got to do it because we want to keep Russia in the picture and Russia will not go along with us unless we accept the veto power and unless we accept the other provisions which make it possible for us to maintain our sovereignty."

Oh, my friends, how wrong they were; how tragically, desperately wrong they were! Would you like a little proof, if you have not seen enough of your own by now since the atomic bomb has hit the horizon?

I said to some of my friends out there then, "You are dead wrong. Russia won't leave this conference. She's got to have us. She's as dependent upon us as we are on her. It doesn't do any good to give away your whole hand and let the other fellow know that you are going to do all the cooperating when you are not sure that he feels that same compunction."

I asked Walter Duranty, who knows infinitely more than I do about Russia, about two months after the conference if he felt Russia would have left the conference if we hadn't yielded on the veto. He said, "No, not at all. She couldn't have afforded to leave it. But she is in an infinitely stronger position today to get what she wants than she was then."

Now, to the United States Senate. This past week we asked two former United States Senators who were classified as isolationists to speak on the negative of next week's topic on "America's Town Meeting of the Air": "Does the Atomic Bomb Make World Government Essential Now?" Please note the "now."

Do you know what their answer was? Senator Langer, who voted against the Charter, and Senator Johnson of Colorado, both said, "Our position is in the affirmative."

No, my friends, if our leaders had gone to the San Franscisco Convention and said, "We are going to stand by the principles of the Atlantic Charter," they could have had a decent Charter and not a makeshift something that anybody would sign.

Argentina signed it; Franco would sign it, gladly. Why? Because it doesn't mean anything. It is a framework for the biggest game of power politics yet to be played. That is how courageous we were at the height of our power and influence as the greatest, the strongest nation in the world today!

Oh, history is going to have a terrible opinion, in my judgment, of America's leadership at the close of this war! When she had a chance to stand by her principles and give the world an organization

based on the facts of life, she drew up a document based on political expediency.

Look at the London Conference. How can you have a world organization in such an atmosphere? What hope is there for UNO when one nation can stalemate all action by the others?

We all know, every one of us in this room knows, there is only one way for us to have collective security and that is for every one of us to come up here and put our guns on the table and say to a sheriff, "Here, you enforce the law."

How would it be if the four of us seated up here said to you in the audience, "You little people out there, you put your guns on the table. We are the big shots up here. We are the sovereign powers. We are going to run this thing for you. We are going to keep our six-shooters and a couple of cannons and a few battleships and a few atomic bombs, but you put your guns on the table. We'll take care of the peace of the country for you."

What kind of sense does that make? None. Because I insisted on standing by our principles at San Francisco, some of my friends out there said, "Oh, you are an idealist, you are a perfectionist." "Is that so?" I asked, "Do you call me a perfectionist if I insist that the airplane that I ride in be built in accordance with the principles of the laws of physics and chemistry?"

No, you can compromise about whether it is a one engine plane, or two, or three, or four. You can compromise on whether it is a passenger ship or whether it carries two passengers, five passengers or fifty passengers, but you cannot compromise with the laws of gravity and aero-dynamics. You cannot compromise with the principles of human relations—I am not talking about pie-in-the-sky principles—I am talking about principles of human relations that have been demonstrated and tested in history.

The time has come when another thing is so compelling that I do not want to miss this opportunity to say it before any audience. We had the opportunity at San Francisco to extend the principle of law to the world community. We failed to do this and until we do it, we face two alternatives: Utter extinction or the rule of a dictatorship from whatever power wins at the close of World War III. You can get law in but one way. That is through the Government. We must set up a world government of limited powers or face these two alternatives.

I mention these things because it seems to me that they serve to underscore the compelling necessity for every institution that calls itself an educational institution today to go out into the market place, and in your own way, open the doors of your school, college or

university to men and women from 18 to 80. Work out a program that will meet them on terms that they can understand. I do not mean talk down to them, but at least talk intelligently to them and not in the language of the Harvard Report.

Use every means of communication at your disposal.

1. Great teachers.
2. Radio.
3. Movies.
4. Pamphlets.
5. Booklets that the public can understand.

It was not my purpose here this morning, and I do not think it would be profitable for me to try, to lay out a curriculum that might be adopted because there are so many different kinds of schools and colleges represented here. But these are the principles that seem to me should be applied in educational institutions today if we are to meet the challenge of the facts of life, including the atomic bomb.

AFTERNOON SESSION

FRIDAY, NOVEMBER 23, 1945

SOCIAL CONTROLS OF SCIENCE

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(The stenographic report of Dr. Compton's address was edited by the Secretary of the Association)

When I was assigned the topic "Social Controls of Science," the first thing that I asked myself was is there any control that is possible over science? Or is the desire to control science one of those desires that can have, in the nature of things, no satisfaction?

As I began to think over the question, I found that there were social controls. One can control science, but the difficulty is that when one tries to exert these controls, the controls, although they are effective over the region over which one has power, are not effective elsewhere throughout the world. In one way or another society seems to be weakened by these controls. Some other portion of society, without the controls, goes ahead the more rapidly in a different direction and the effect of the control ceases to exist so far as the world as a whole is concerned.

I am reminded of two stories that I would like to describe. The first is of the old Greek hero, Daedalus. Perhaps you think of Daedalus, when I mention his name, as the inventor of the flying machine. But to the Greeks, Daedalus was more noted as the person who introduced the use of steel; and according to this legend, Daedalus worked long and hard with his hammer and anvil and fashioned a steel sword to give to King Medes of Greece.

His friends came around and said to him, "But Daedalus, why do you give the King that sword? That won't give us happiness. That is going to give us strife."

Daedalus' answer was, "My friends, it is not my intention to make you happy. I would make you great."

Now, I suppose that interpreted in terms of a modern situation, we would have to think of steel being represented by science and the thought of Daedalus perhaps would be something like the atomic bomb. I do not know that it makes us happy. The effect in the long run is that having these powers in our hands and having perforce to take the responsibility of learning how to use them and how to control our use of them, in some peculiar way we are made great.

The other story that I would use to introduce the subject is to illustrate the impossibility of trying to exert a social control over matters of this kind. It so happened that I was a consultant for the

General Electric Company at the time that the fluorescent lamp first came on the horizon. It is a story that I think is of enough interest to explain.

Now, in the background of the electrical industry the incandescent lamp long had a unique position. Its position was that of the stabilizer of the electrical industry. In good boom times the electrical industry was not much concerned with the incandescent lamp because it was only small in volume of sales, as compared with the transformers and the motor generators and the other big electrical machinery. In dull times, when the boom was off and people were hard up for money, they would not buy transformers or heavy machinery, but lamps continued to burn out and they had to be replaced. There was continued sales of the incandescent lamps. In times of depression, the incandescent lamp was the life blood of the electrical industry. Even though relative to the total volume of the electrical business, the incandescent lamp was small, it was, nevertheless, very important.

Then came the fluorescent lamp on the horizon. The fluorescent lamp had some advantages that were real from any electrical engineer's point of view. It gave more light for the same amount of electric power. Here was something that was an advantage for the electrical engineer or the consumer but dangerous for the industry. Namely, the fluorescent lamp had at least three times the life; it might be made to extend over ten times as long a life as the incandescent lamp.

Well, suppose it developed in that direction, what would happen to the stability of the electrical industry? Hard times would come. People would not buy heavy machinery; their buildings, their houses would be lit by the fluorescent lights; these would not burn out; they might become somewhat duller but they would continue to burn and they would just not be replaced. The electrical industry would have no sales. That was the situation with which the industry was faced when the fluorescent lamp came on the horizon. What should they do about it?

Would they say, "We won't do anything with that. We'll squash that. We'll somehow put the lid on it so that the fluorescent lamp can't get out."

Well, we discussed that in the councils of the General Electric Company. It was obviously a hazard to the industry. It was equally obvious that it was not possible to do anything about it. It might be that the General Electric Company, through the Mazda organization, could make an agreement with the Westinghouse Company, "We will not make fluorescent lamps." Then there would be the National Company, or some other company would come in;

we might make arrangements with them. We might get a complete national bloc on the development of the fluorescent lamps.

Somewhere in Holland or in Germany or in England or Japan or some place somebody would develop the fluorescent lamp and then what would the people back home say? They would say, "Your people in the General Electric Company were slow on their toes. They did not have the ideas or, if they had them, still worse, it is being held back from our use." The latter condition would be worse than the first.

What was to be done? There was only one possible answer and that was to get just as busy as we could, get as good a fluorescent lamp on the market as quickly as possible and try to beat out our competitors. That was the procedure that was followed.

I mention the story because it is illustrative on an industrial scale of the kind of thing that happens every time when groups in society or nations or industries have tried to exert a control on science. It is not that it cannot be exerted and that science cannot be retarded in some direction or another. It is that it can affect only a portion of this great world of ours. It seems to be a fundamental matter of the growth of man that he should learn to think and, after all, science is just one development in the direction of learning how to think.

People will not forego the ability to think, and if one does not permit that growth in one portion of society, some other portion of society will see that the process does develop.

It still remains true that "if ye learn the truth, the truth shall make you free," and it is that doctrine which is the great strength of science. It is written into the laws of rocks, the law of evolution, the law, if you wish, by which the creator has made this earth of ours and this world, that man shall develop. The direction of the development is in science. Now, that is, so to speak, my story in a nutshell. Before I drop the matter, let me give you some examples as to how that development has gone.

I would like to review with you briefly the birth, the life and death of one period of science and then try to go with you into our present creed of science and see where we stand at present with a view towards seeing what can be done about our scientific growth.

There was one complete period of science which grew to its apparent maturity and died out. That was the science that grew to its peak in the Greek and Roman scientific period. It died in the early Christian period, or perhaps somewhat later, and was nevertheless the seed from which was born the present period of science as well.

You can find several origins of that early period of science. There is the Babylonian origin, the Egyptian origin, and several others. It was in Babylonia that the worshippers of the God of the Sun and the God of the Moon made their studies of the heavens. For perhaps a thousand years or more, they kept records. It was on the basis of those old records of the Babylonians that Thales made the first prediction; his famous prediction of an eclipse. On the basis of that prediction, he became known as one of the wise men of the ancient Greeks. It was on the basis of these old priestly Babylonian records that Heraclitus first noted that there was a precession of the equinoxes; that year after year the time in the year that you have the Spring coming varies slightly, and that you have a complete cycle over some 25,000 years.

The science of the Egyptians was of a more practical type. The medicine that led to the marvelous discoveries and knowledge that has recently been unearthed by Professor Breasted and some of his colleagues, seems to have been of a non-priestly, straightforward secular desire to know how to heal.

Those old bases of science developed then into the Greek science, which you might describe as of a philosophical type of science. It was the purpose of the Greeks to learn how the world worked in order that one might find a better way of life. I am quoting as accurately as I can from Pythagoras in that statement: "How the world works in order that we may find a better way of life."

That led down to a study of the machinery of things. You may recall the statement of Socrates. You remember when Socrates was seated on the couch talking to his disciples. He was condemned to drink the hemlock as soon as the ship was to come back into the Port of Piraeus. In the meantime he was free to escape because the friendly jailer was not going to stand in his way.

He said, "Once when I was a young man I read a book on physics by a man by the name of Anaxagoras. Anaxagoras would have you think that I am sitting here on the edge of this cot with my knees bent because of the tension of certain tendons over the bones. What Anaxagoras seemed never to know was that the real reason I am seated here on this cot is because I have been condemned by the people of Athens who think that I have led astray their youths, and that being a man of honor, I cannot stealthily creep away."

The science of that day was of philosophical import. You may recall Lucretius' comments. Lucretius was scornful of a person like Archimedes, who would put his science to practical use. The only proper use for a man's study of science was in order that he might understand the world in which he lived; in order that he might have an adequate attitude, shape his thinking about his world. The

problem that bothered Lucretius was how is it that these atoms bump into each other and each moves the other by its forces and where in that picture do we get the swerving that may give rise to the freedom of the will? The whole story of science seemed inevitably, according to these philosophers, to lead to a deterministic world. They did not like a deterministic world. It seemed to take away the purpose, the meaning of life.

About the time of the forming of the empire there came in the thoughts from the Orient, from Judea and from Persia and from India, and you get a variety of myths and mysticisms along with some very high principles. The importance of intuition was a guide to how one should live as compared with rationalization as the thinking process which sometimes was effective. But this led one apparently to the idea of the uselessness of thought in a mechanistic world; brought philosophers to an impasse which made them think that science itself was useless; it was not a practical science and if it led to the wrong conclusion with regard to the values of life, why follow science at all?

One sees that echoed in the teaching of Plotinus, for example, where he lauds the virtues of intuitional thinking as the higher form, and reason as something of a lower order of thinking. One sees a try at revival at the time of the rise of the Islamic science. Ali Hassan is one of the scientific names that we think of in those days, the great doctor and the great optician.

After a period of rather vigorous growth in Bagdad, there came the time when the leaders of the Mohammedan empire saw, as they said, that we must be very careful of this matter of the teaching of science because it leads away from belief in God. We must be cautious of it. The result was that that idea became widespread in Islam around 1100 A.D. The result was a distrust through the whole of Islam in the idea of science. It was again the fact that that science led to a determinism in connection with Mohammedans' already too strong idea of fatalism; sapped the strength of their people.

The result for Islam was tragic because it meant the limitation of their teaching and of their education to the mere rudiments of reading such as would make it possible for them to learn their Koran, but not to go any further, for further knowledge would be dangerous. The result was in the outlying portions of Islam, such as Spain, you had science continuing and it spread from there into Europe where it gained new life. In the center of Islam, around Bagdad, it died and it has never recovered. It has never recovered, and it is perhaps weaker now than it has been for a long time because of that insistence on no more education than necessary because it is dangerous to the belief in God.

There you have social controls of science. Science was ruled out because it gave wrong attitudes toward life. It was dangerous to religion, and you have a period of a thousand years, more or less, when we have science, if any, of only a rudimentary form. Science was really not dead; it was sleeping—dormant only. One sees it gradually coming to life again in the Middle Ages.

It came through reason—the old scholastics arguing perhaps what seems to us now as very remote types of arguments; the old ideas of the realists and the nominalists, over the meaning of words; nevertheless insisting upon the fact that one's thinking must be straight—and it comes to Thomas Aquinas who saw that all of this knowledge, after all, comes from the same source—whether it is revealed religion or the religion that comes from nature—it is the same story whether your knowledge or your religion comes from one source or another.

With that, one began again to think in terms of nature, the laws of nature, as thinking of a type of worship of one's creator, for was one not trying to learn God's thoughts after Him? The religion which had put science to sleep was the mother of a new era of science. It was difficult for science to get its new start.

It was not only this philosophical and religious approach—there was also the practical approach. You have, for example, Francis Bacon over in England pointing out that science has great new possibilities for us. If we will study our science, then we can learn how to do all the things that it is possible to do, was the doctrine that Francis Bacon put forward. It will give our nation great strength, our people will have richer lives. We must learn science because of its practical value. There was the politician speaking.

So we have, as we still have today, science coming from its philosophical and from its practical approaches. Science now had a life that it did not have for the Greeks and Romans because the practical was added to the philosophical, but both of them remained there as essential components.

One sees science going through Tyco Brahe, Galileo, Keppler. At that time it is difficult to separate science from superstition. Tyco Brahe was an astrologer as well as an astronomer. He took his observations on the stars and they were precise, beautifully precise. He, likewise, told the fortunes of his neighbors in order perhaps to get the money necessary to build his scientific instruments.

Keppler, beautiful soul, read the music of the spheres into the motions of the planets and he saw that they moved around in ellipses with the sun as one of the foci. It was a peculiar combination of that mathematical study with the musical numerology that comes with the relation of the distances of the planets from the sun.

Gradually we get to Newton, one who had his scientific thinking clear. It was free, so far as one can tell, from other than science implications. That does not mean that he was not a religious man. He was. Religion was basic to him. He kept his science a pure, rational system by itself and therewith set the pattern which science has followed from that time on.

Perhaps as I get into this modern period it will be worthwhile to call attention to some of the controls that have been acting on science during this period. One of the first of these controls was the attempt at a religious control of science. One finds it, for example, with Galileo, an historical example. Galileo found evidence that the planets revolve around the sun. That was disturbing from several points of view. In the first place, a statement along that line was a challenge to authority, and authority was important for the church and the very background of religion.

I would say that that was not at all fatal to religion and religion knew how to adapt itself to a challenge to authority because the authorities themselves were capable of considering new ideas and reshaping the pattern of their thinking. There was something that was even deeper than that. Here was the idea that led away from the thought that this world was built around man as a central objective of the care of his creator.

That had been the teaching of religion from the beginning. Now man was merely a small unit of activity on one of the minor planets in a system of which the sun was the great object, and that sun faded into relative insignificance as only one of a myriad of stars. It took some time to make that adjustment, and the adjustment in the thinking brought about a reconditioning of religious as well as scientific thought.

Galileo himself was by no means eager to break away from the social controls of those days. He felt the values of the religion that was challenged by his science. As the science went ahead, it was clear that it had its own life, that it could not be controlled.

It was true that one could control it in Italy, but there were those Protestants, and you have a Holland and an England where it was possible for science to grow apace. You have a Newton and you have the 17th Century mechanists following Newton. Those 17th Century mechanists were a hard lot. They did not care very much about the religion that was being challenged, shall we say.

What if there was, according to intuition, color and fragrance and a life redolent with beauty? The real things in the world were motions following each other with mechanical regularity. There was the real thing.

That finds perhaps its peak of expression in a statement by LaPlace in the early part of the 19th Century.

You remember that story, the famous story how Napoleon came to LaPlace and said, "In this great book of yours, sir, where you have written about the celestial mechanics and you tell about how the world came into being, I note that you have said not one word about the world's creator."

LaPlace was said to have replied: "Sir, I had no need for that hypothesis."

By the way, I am not sure that all of you are aware of the fact that that statement of LaPlace is only a part of the total story. When LaPlace's letters were gone over after his death, among them were found two to his son in which he pointed out, "My son, it is very important to hold to the belief in God. It is essential for the stability of your life. There is no other type of thinking that will so stabilize your life as a belief in a creator."

That is LaPlace when he talks from the heart to his own son. What he was saying in his conversation with Napoleon is no more than I would say in my conversations with my physics students in the laboratory. If the question came up when you were discussing the origin of matter and how it is that atoms are made, "Why do you say nothing about their creator?" I would say that from the line of thought that we are following here, gentlemen, there is no need to introduce that hypothesis. It is irrelevant to the picture.

So, one has a type of science which is irrelevant to the thinking that is based upon the ultimate origin of things, for that science is not concerned with the ultimate beings.

Then came further the question of evolution, and that was a hard one. It is not so far back that many of us, all of us, remember the echos. It was opposed by the conservative forces of religion for whom life was precious and to whom man was a distinctive being because he had the characteristics of the child of God. Could that man be described in terms of the forces that give life to the rest of the living beings in this world? Was that an adequate picture? There must be something wrong with that picture. So, the teaching of that kind of science is still outlawed in certain parts of this world.

Yet that same doctrine of evolution is the doctrine which has taught us how to take into account our own development, how to understand the world; and we find Mendel in his monastery following the colors of the sweet peas and we find other laboratory workers studying here and there the laws of evolution. And how it is that the creator, the great forces working in nature, bring out the things that we now see.

It is, if you please, a part of that study upon which we are engaged this afternoon. How is it that man develops into the being that he can be? It is this evolution of life into new forms with which we are perhaps more concerned than anything else.

So again we see attempts to control science. The conservative forms of religion and the nations in which those are predominant found it difficult to accept science. In other parts of the world, in a Germany which was rationally minded and where one would not permit the religious or philosophical implications to get in the road, we have a Nietzsche building a philosophy on a type of science which is all too narrow because it supports the evolutionary law of survival of the fittest or might makes right, leading to the doctrine that man can put himself beyond good and evil.

You have the tragic result of a Nazi attempt at empire. You find a Russian or a French revolution reacting against religion and all its works; holding science up on a pedestal—cutting themselves off tragically from the values that come with a religious approach to these same truths of nature. The result is that only where one can maintain a balanced view does one retain a healthy growth of the world in which we live.

Yet it was possible for religion to exert controls over the growth of science. In Arabia and Islam it killed science. That did not, however, kill science throughout the world. It was possible for Italy to retard science, put it within straitjackets, but science then grew in other parts of the world. It was possible for conservative religion to have nothing to do with evolution, but the doctrine grew just the same.

It was to the detriment of the world that religion and the doctrine of evolution grew apart instead of together.

Well, you have other attempts at control of science. You have political control. It is somewhat difficult to find examples of political retardation. You do find examples, and good ones, of political encouragement of science.

One of the early ones, for example, goes back as far as Archimedes. You remember how the Romans, when they took Syracuse, tried to save Archimedes. Well, Archimedes was killed, but that was not because the Romans did not want to save him.

You find in the time of the Medici the support by the Medici of Galileo because he was a good man to calculate how their guns could shoot more accurately and they gave him support in his development of optics because his telescope would enable them to see the enemy when they were far away. "This glass will give us great new powers in time of war."

One finds the same type of encouragement right on down the line. There are plenty of examples of how a nation or a political group will encourage science and science under such encouragement grows rapidly and almost inevitably the group that encourages it is strengthened thereby.

There have been attempts of a political type, likewise, to curb science. One of the most recent, and perhaps the most prominent one I know of, is the attempt of the Nazis to curb science in the 1930's.

There you will recall there was a strong antagonism to what was known as Jewish science. Jewish science, to the Nazis, was any science which was of such a general nature that it had no particular advantage for the German nation.

Any new discoveries that might be of equal value to the whole world were of no particular interest to the Aryan scientists of Germany. With such doctrines, for example, in physics as the Theory of Relativity, the Electron Theory and especially the Quantum Theory.

These great theories which are basic to modern physics were described as Jewish science. I recall very well the difficulty that Heisenberg, the founder of Quantum mechanics, got into, when in one of his lectures to his graduate students in Leipzig, he described these three fields as the great fields of modern science. When he mentioned among these three the Theory of Relativity, there were hisses and boos and the propaganda minister directed the newspapers to carry on a campaign against Heisenberg for including relativity, which had been discovered by a Jew, as being one of the great ideas of modern physics.

The result of that kind of propaganda was to stop that so-called Jewish science or at least retard it strongly in Germany. The men who professed that type of science went out of Germany. They went to Denmark and Switzerland and England and the United States. When they came to the showdown struggle, what happened?

Those scientists who took refuge from Germany because they were exponents of Jewish science, so called, were the ones that gave the great power to these other countries to swing the weight of scientific strength against Germany. Germany was the loser. Yes, they could control science, they could slow down the development of those general principles. They could push up the immediate, practical applications as a result, but thereby they lost the power to develop an atomic bomb. Yes, one can control science by means of political pressure.

There is, likewise, an economic pressure that you can put on science. The economic pressure is of various types. Again, it is

possible to encourage by economic devices the growth of science. If you give a university a good fund for the growth of science, it can do something with it and you will have new laboratories and new equipment. You will have fellowships for the students and you will have active work in that direction.

There is one danger that comes there. It is the fact that with the growth of the practical applications of science in engineering and industry, there is a preponderance of thought in our universities on science as a means of getting more things for people; of making life materially richer.

That is a direction of development which is sharply away from the old philosophical ideas of science that the Greeks had. It is not altogether wholesome. Those of us who are exponents of science look on it with dread, for we see that the real reason in an education for science is to open the minds of young people so that they can see and understand the world about them; find an adequate attitude of facing the world so that they know what to expect of the world and can shape their lives in accord with the full facts.

It is of quite secondary concern that it is possible to make more gadgets with which to live. I do not want, in any sense, to belittle the fact that by means of science one gets better health, longer life, more food, a greater variety of life through the things that one has. After all, these things are the secondary matter and so far as the fundamentals of science are concerned, the real interest is the philosophical one of creating an adequate basis for an attitude toward life. It is away from that type of science that we are pulled by the strong economic pressure of industry and engineering.

Nevertheless, there are by-products of that type of pressure which are to the good. They do give us a possibility of developing all aspects of science and it would be foolish to try to deny that the present interest in science in this country is to a large extent because of the demonstrated strength that our nation has received during the war period because of the practical applications that have come from science of all kinds.

Actually, these aspects of the practical and the philosophical in science are the two feet with which science walks ahead. Each is necessary in order that we should progress in a balanced manner. It would be possible, likewise, of course, to retard science by holding back from it the necessary sinews of strength. It would perhaps be weakening to a nation to do so. It could be done.

The sum of what I have been saying, however, is this: That we now have a science and a technology which have grown to immense proportions. They have grown to immense proportions because they have been found useful to humanity. They have become

very influential in our thinking because they have given us a freedom from superstition; an understanding of the vastness of our universe, of the place of humanity in the system of life and something of an understanding of ourselves that we did not have before.

These things science has given us. Now, because we see that science has also given us some Promethian gifts of which we are afraid, and quite naturally and properly afraid, we wonder if it is going to be possible for us to control science? The answer is yes. It can be controlled. But if we restrict science, if we in the United States would agree upon a restriction, what we have done is to pass the strength to some other part of the world. We have weakened ourselves. As a result, we have weakened the whole world, but most of all we have weakened ourselves.

So, I am not optimistic about the effective control of science in the sense of retarding science over the world. The idea of declaring a moratorium on science is one of those things that just does not work. The fluorescent lamps will be made. The real answer is that we have the steel, and from that steel swords can be fashioned, and those who fashion the swords can use them and thus man will become great.

The real point is that you have in your hands a tool which is demanding things of society, and what we can do is to see what the changes are that demanded of society by science and put ourselves in a position to accept these changes so that we can make the most of the new conditions into which we are entering. That is something that we can do.

I do not believe that we can stop science. What we can do is to see the direction toward which we are going and adapt our teaching and our thinking so that we can make the most of that future.

What then are the directions towards which science is making us go? There are three points that I would like to bring out, and they are rather obvious and important to us as teachers. The first of them is that of increased cooperation. The second is that of increased need for education. The third is an increase in the spirit of service for one's fellows.

Those are the directions towards which science is making man grow. There are other directions also, but those are three of the main lines.

The matter of cooperation comes merely because we are becoming a group of specialists and specialists survive only insofar as they can cooperate.

I have just myself been through an example of that in connection with this atomic energy project. It happens that there you have a

project employing at the crest perhaps a million men in this country of ours. They were spread all over the face of the country. There were all kinds of different men. There were scientists—scientists of a thousand different specialties. There were engineers, industrialists, Army and Navy men, laborers, miners, and the carpenters and the electricians. There were the office workers of a variety of different types.

All of these people working together somehow learned how to do the job of releasing atomic energy. They were united by a common objective. Their work was coordinated carefully.

One of the remarkable things about that enterprise was that no one person could possibly know the answers to the many questions that were asked. Yet, somehow, that group of people was able to fashion a process that would work.

Now, that is an example of the strength that is given to society by the cooperation of a group of specialists. It is a pattern which is becoming more and more widespread. In science it is already a strong pattern. We have had our scientists, such as Faraday, or Benjamin Franklin or Harvey, who themselves, knew a large field of science.

Now we have a group of specialists, and if you want to be treated for some disease, you go to a clinic where there are many specialists present. They pool their different resources on that disease, and you find the best that each one has to offer centered on your own particular problem.

If you want to develop some new laboratory device, there are laboratories of specialists that work together on those devices. Likewise, if you want to study cosmic rays. There are many different groups of specialists working in this country. That is the pattern.

It applies not only to science, it applies also to education. Each one of us is a specialist in his own field. They used to say that my father did not occupy a chair in his college, he occupied a settee. Nowadays, even the chair has two arms on it. You have a person sitting on each arm.

So that it is a group of specialists working together. Cooperation is necessary. If you do not get that cooperation, you lose the strength that society has potentially in its possession.

It is partly because of the fact that in this country of ours we have so many different kinds of people from many different races and religions and geographical origins and different traditions that we are able to do so many different kinds of things. As long as you can get those different people each doing their own part and doing it effectively, coordinated with the other, you have a mighty society and it is that that has shown the marvelous strength of the United States as compared with the rest of the world.

If you allow a Hitler or his ideas to get into that society and divide, it brings up barriers so that the gears do not mesh, then you have a society that will not work and the state is a tragic one.

It is imperative in modern society that we have cooperation. It is partly that that now makes war the crime against society in a degree that it never was before, because war is the great disrupter of this coordination.

The second trend was that of education. We find our machines doing many different things. That means that unskilled labor has less of value. The skilled labor that makes the machine is more important, and we reward those laborers with shorter hours and higher pay.

We need coordinators, middle-men of a variety of types. We need engineers and scientists on the technical side; we need people who can see what men's interests are in order that our efforts shall be put in the right direction.

We need administrators and all kinds of executives. At each level of society the pressure is on us to have more and more training and education. It is true that the result of the recent war has been to stop the education of an important group of people at an important age level. Right now, we have as a result, a lower level of education than we had a few years before.

Those of us in the colleges are well aware of the pressure that is coming back on us as the students come to us. What are they asking? They are asking for more education. They want more education. More people want to get it and they want to go further.

Where did you get the leadership that made possible those great new developments? The answer is that it came from those persons who had a scientific and technological background that went far beyond that that comes in the four year engineering school. The engineers know it and the young engineers who are now looking forward to education are not going to be satisfied with a four year engineering school. They want to go further. The pressure is on for further training in order that one may really become a master of his art. I think of the experience that I had with some of my British colleagues a number of years ago when they were rather making fun of us.

This was immediately after the last war. They were making fun of us because we had advanced higher education open to all the people who want to get it and they said, "Well, that is going to breed a lot of unrest because they will have their ambitions, their appetites whetted for things that are unattainable."

What happened when this war came? Again there was the showdown and we found that we did not have enough of the people

who had the training. We wanted more in every bracket and that is what we find that we need now—more people with more education.

The other of these trends is toward a desire to be of service. I cannot document that by letter and verse in the same sense that I can the ideas of cooperation and of education. I think it is nevertheless real.

Our forbears, when they fought for this country, were not so much concerned with making a better world as they were with preserving for themselves the right for the pursuit of happiness. One gradually now sees that our people, if you have a strife between labor and capital, will justify themselves by the fact that labor is out to help to do the work of society and capital points out that the objective of our industry is to supply the needs of society. It is more and more true that we justify our acts in terms of the contributions they give to the people around us. It is obvious that those things must be true. It is obvious that if you have a machine, however powerful, and if you have a steering mechanism, you have got to have a driver who knows where he wants to go. You have got to have the direction.

During the wartime we had that direction and it was a powerful unifying influence. We needed to get victory. The alternative to victory was defeat, and defeat meant enslavement. We were bound to get the victory and each of us was proud to do his solid best in the common effort to get that end result.

As we look ahead we see that the survival of our society in this fiercely competitive age depends upon gaining all the strength of that society, and where does that strength come from? That strength comes from the drawing out of all the possibilities of each individual of which that society is composed.

If we can do that successfully, then our form of society in this intense struggle for social survival has a chance to persist. If we find that we cannot in our society draw out that strength of our individuals, then our society will become a weak society and it cannot long survive in competition with other forms.

So, we see that as we help our neighbors to do their part more fully; the neighbors in the other parts of this country, the neighbors in surrounding countries; we can be a prosperous nation and the world is prosperous.

That we have learned. At least I hope we have learned it. It is the lesson forced upon us by the modern developments of science which point strongly, with unrelenting pressure, in the direction of service to our fellows.

Cooperation, education, service, what are those? Those are the things that make life richer for the individual himself. Those

are the things which make it possible for one to become more and more human. Science is the central force, I suppose, that is working the social evolution of man towards humanity.

If you want it put in other language, you can say that as we gain this strength we become in a very real manner creators, shapers of our society and eligible to the name of children of our creator. You see, the real situation is very much like that of the ancient story of when the first man and the first woman ate of the fruit of the knowledge of good and evil, they found that they then wanted, because of the severe responsibility that was put on them by that knowledge, to get back to the garden of innocence.

There was an Angel with a flaming sword that prevented them from going back.

Now people say, "Your science has gotten you into difficulty. You have developed terrible devices. It is true that you have the sword; the sword is perhaps an atomic bomb. Let us abolish it. Let us go back to a pre-atomic age."

As one asks that question, one finds that there is that same Angel with the same flaming sword preventing one from going back. The only direction one can go is ahead.

The comforting part about it is that in using these great powers, one is achieving humanity. One finds that love of one's neighbor becomes the very rule of life. We cannot survive without it. We must be of service to our fellows, and that service involves a growth of our own humanity.

By wielding this sort of steel, we find that we are becoming great, and through that process, the experience of helping our fellows —perhaps we may become children of God.

SECONDARY EDUCATION TODAY

WILLIAM G. AVIRETT, *Education Editor,* New York Herald Tribune

At this moment, very early in the atomic era, secondary education is uncertain, both as to where it has been and as to where it is going. You have just heard an eloquent, informed and comprehensive survey by Dr. Compton, which was essentially a plea for freedom of scientific inquiry. We, in secondary education, would sustain that.

But we would like to have scientific investigations pursued within a world-wide framework of law, so that society may be assured of profit rather than disaster from their results. Since there is no time available this afternoon, in which to debate the merits of such a global regime of law, may I base my remarks on the assumption that it is a desired and practical objective? Our question then becomes, how can secondary education contribute. It finds itself unprepared, handicapped, but willing.

It is unprepared, and the most recent statement of that fact comes from Harvard. With an enthusiasm corresponding to that felt by the caravels of Columbus, Harvard has discovered the American high school. Its existence—and its heavy burdens—had been suspected by those of us who dwell here between the Hudson and the Potomac, in an industrialized and urbanized area. To twelve good men and scholars from Cambridge, however, must go the credit for focussing attention on our high schools at the very outset of the atomic era.

The essential fact of the Harvard Report is that our high school population has grown 9000 per cent since 1870. It has grown ninety times in a period during which the general population increased three times. The net result has been a tremendous increase in responsibility and in diversity of function for the high schools.

In view of this change from class to mass education—to education for all comers or "universal education"—Harvard prescribes a central core of uniformity within the inevitable diversity. If democracy is to flourish, all youngsters must hold some concepts in common, in order that they may share a common heritage and work together to sustain and enrich it.

A second fact in the Harvard Report is that only one student in four goes on to college. Three out of four do not. The main job of the American high school is no longer college preparatory. The main job is to provide terminal education for the majority of its students.

A generation or more ago there was continuity between the high school and the college. High school teachers and college teachers shared a common background and philosophy. Their combined

efforts gave the student a consistent eight years of academic experience.

This old-fashioned continuity has been preserved in the private schools and accounts in part for their growth in recent years. The term "private school" is out-moded, emphasizing unnecessarily the method of financing, and the modern substitute, "independent school," is not the ideal designation. For that matter, the term "parochial schools" has a limiting connotation that seems unfair to the volume of work, the share in the American enterprise of education, which they shoulder.

Whatever the designation—and I, for one, prefer the term "academies," with its deep roots in our history and educational tradition—the fact remains that they do not carry the volume load today. This is borne by the American high school, the majority of whose students do not go on to college.

One additional note may be inserted at this point. Beyond the secondary level, we are beginning to realize, a two-year period is emerging which Dr. George D. Stoddard calls the "tertiary level." As the modern tidal wave of students pours over the edge of the high school diploma, an answer for many of them is being found in junior colleges and two-year institutes. As these programs develop, the numbers of those who go beyond high school will increase.

None the less, it is at the high school level that American education has been stabilized. This is the level that has grown like Topsy and is now in process of appraising its own amazing evolution. And our question this afternoon becomes this: how can the American high school provide the sanctions, which a democracy must have, if the great rank and file are to sustain the controls over science, and over every other form of human activity necessary to a law-abiding world? Between the ages of fourteen and eighteen, this essential task must be undertaken.

Time does not permit further discussion of the first of my three points—whether or not we are prepared—and so we come to the second point—whether or not we are handicapped. Are we too departmentalized or compartmented to teach those youngsters what they must know?

Here I find myself recalling an observation made by Dean Gauss of Princeton: "Two centuries ago a German courtier sought to please a throne by presenting two identical oak leaves. To his Teutonic amazement, his search revealed no two oak leaves that were identical. Education ever since has been concerned with the differences between oak leaves."

Education today appears to be swinging back from the differences to the similarities. Harvard had this striving for a new unity in

mind, when discussing "General Education in a Free Society," although there is something almost whimsical in the provision of a new department in Harvard as a guaranty of general education in a departmentalized college.

One handicap in secondary education, then, is that our teachers teach subjects. To begin with, they were themselves taught one subject after another, and when they finally completed their preparation, they were hired to teach a given subject or subjects.

Where the colleges have made substantial progress in cutting across departmental lines, notably at Columbia, the high schools are just beginning to think in broader terms. It is not easy for a veteran teacher to widen his course in American History into a course in American Civilization. The ideas behind the war-stimulated "area courses" in the colleges will be difficult to apply at the secondary level.

Our handicap of thinking in terms of subjects, I believe, will be overcome. There is a second handicap, the curriculum, which I would like to approach somewhat statistically, realizing that in every school there are ingenious manipulators of the students' time who can outwit even the most rigid requirements.

I submit that American secondary education has been built on the historic foundation of sixteen units. Four units, without challenge, must be devoted to the study of English. Three units, now under challenge, especially in the South and Southwest are set aside for the study of foreign language. Two units, a rather unhappy ghost, are assigned to the study of ancient language.

Four plus three plus two makes nine, or more than half of the students' time. Add three units of mathematics, and you have accounted for three-quarters of the time. The remaining four units, under the pre-war dispensation, permit one unit for natural science, one for social science, and two vague and unhappy units which become a no-man's-land where all may strive and few holds are barred.

The above pattern applies of course to high school students preparing for college. Against it may be set the Harvard pattern for all high school students. This calls for three units in English, three in the natural sciences, including mathematics, and two units in the social sciences. It accounts for half the students' time, to which Harvard suggests, rather wistfully, that it would be nice to add three more units if possible.

Without entering further into this mathematical imbroglio, it may be observed that the Harvard minimum program makes no provision for foreign language. The three additional units it recommends are one apiece in each of the three areas already prescribed. And the

first of such units to be added, as a matter of simple justice and equality, should be in social science, according to the social scientist.

This brings to mind a third handicap under which we labor in attempting to make our contribution toward a world-wide legal system, wherein science may inquire freely. It was my privilege several years ago to preside at a meeting of history teachers here in New York. We had gathered from afar to discuss the Conyers Reed Report, which advocated a broader approach in the teaching of history.

After spirited debate, it was left to a gentleman from Pennsylvania to express the consensus. Said he: "This calls for the ideal textbook, which has not been written, for the ideal class, a rarity in my experience, and for the ideal teacher, who does not exist."

With this reminder that secondary school teachers, in common with other mortals, are subject to human limitations, we can leave the negative aspects of the questions—our unpreparedness and our handicaps—and conclude on a more positive note.

At the secondary level, we teach adolescents. Some of us are tempted on occasion to include this fact among our handicaps. Adolescence is an amazing and mysterious process, and those of us who have lived with it longest will confess that we know least about it.

Over the years, I have often thought of a final paragraph in one of Owen Johnson's Lawrenceville stories. In the privacy of the headmaster's study, one John Humperdink Stover, who had achieved salvation, was discussing the case of a younger boy, whose chances seemed to him remote. Then there came to him a revelation, as he caught the twinkle in the headmaster's eye: how often the older man must have watched "the ugly cocoon of a boy emerge into the chrysalis of young manhood."

I have not had as much experience with young ladies. I assume the process of emerging is even more of a flowering. At all events, this is true: those of us who teach at the secondary level are dealing with adolescence, with all of its limitations and all of its challenge, and do so gladly.

A few days ago I found myself in the office of Dr. Roswell G. Ham, president of Mount Holyoke College. Somewhat to my surprise, he said: "In the tremendous amount that has been written about education in recent years, there is one sentence that seems to me to make a good deal of sense. It appears in Sir Richard Livingstone's 'Education for a World Adrift.' He says something like this: we are living, not in a world of industrial revolution, not in a world of social revolution, but in a world without standards."

I think that we in secondary education believe in those standards, those spiritual anchors for which our students, and not our students alone, are groping. They are needed, as the world emerges from a stage in which it trusted in leadership, inspired leadership, to a more self-reliant day in which the best hope rests on each individual as a citizen. In an atomic era, every man or woman must have a set of principles and abide by them. To the development of these values, I think, we can make a contribution.

Recently, at the Herald Tribune Forum, it was my experience to listen to some forty speakers in rapid succession. They came from many lands, represented a wide range of activity and interest, were of varied rank and age. To my astonishment, one theme appeared again and again.

I was particularly happy when it appeared, with full scientific authority, in the speech by Dr. Vannevar Bush. It acquired international importance when expressed by the Secretary of State. It can be summed up in four words: one world or none.

Three days ago, a few blocks farther north on this Avenue of the Hemispheres—I am assuming that Seventh Avenue will have to keep pace with the Avenue of Americas—I heard Norman Corwin himself read his poem, "Set Your Clock at Uranium—235." I did not miss a word, from the beginning—"Now we are in it together" —to the end—"Make up your mind, your children are growing."

On that same program, it was said in the name of science that we had somewhere between two and five years in which to make up our minds. We in secondary education will require more time than that. Give us the time and we will teach the values and standards by which men may live together, with science freely serving the needs of the one great society.

SOCIAL CONTROLS OF SCIENCE FROM THE POINT OF VIEW OF THE COLLEGES

JOHN R. DUNNING, *Associate Professor of Physics,*
Columbia University

(The stenographic report of Dr. Dunning's address was edited by the Secretary of the Association.)

We look out of these windows today on a post-war world whose social, political, economic and cultural life will be profoundly influenced by science.

The atomic bombs that exploded last August 6th over Hiroshima, later Nagasaki, are widely held as opening a new era. Just what the position of our colleges, of our secondary schools, and in a broader sense, of our whole country and our world will be in this new period is an opportunity that we must all be seriously considering.

It is well, as Dr. Compton has pointed out, to achieve a perspective on this whole subject. Man existed in some state as a conscious thinking person for a good many years; some people say 100,000 or more years; perhaps 300,000. But the period that we call civilization today has been a very small percentage of that total time.

Certainly the last 10,000 years or 5,000 years encompasses the greater period of what we today call civilization, which is a very tiny percentage of man's total existence. It is well, therefore, to look back and see that particularly in this last hundred years, when science has been making its very rapid strides, that, from the point of view of the fraction of time that science has been operating as a force in the world, it is only natural to expect that we will not have solved all of the problems that have been brought in its wake.

I would like to look back perhaps a little further than Dr. Compton did in his analogy. I am sure that back in the Stone Age when some inventive person may have made the first discovery that he could take a piece of hide, cut it in a strip from some animal, pick up a stout stick from the ground and a stone that had a sharp edge on it and with that hide lash the edge of the stone on to the stick and thereby make an axe, that he achieved a definite advance in technology, if not in science.

Then he was immediately faced with a very fundamental choice. He could use that axe constructively to chop down trees, to build houses, to do all sorts of constructive things, or he could use the axe to bash in his neighbor's brains with it.

That type of choice has been typical in a sense of every advance in knowledge that we have made since that time. We have always

had this choice to make: Shall we use knowledge for destructive or constructive purposes?

Knowledge has always been a two-edged sword. The real answer to how man uses his knowledge does not come alone from science. It comes from all the avenues, all the influences that condition his behavior from the very earliest childhood all the way through.

In asking what we should do with science in our colleges or in our secondary schools or, in a broader sense, in the world, it is very easy, as Dr. Compton pointed out, to say: "Well, we have had too much of it. It should be controlled or there should be a moratorium placed on it."

Again, as Dr. Compton also pointed out, science in the larger sense is simply knowledge. It is a tool and in a broader sense it is simply a method of thought and of inquiry that gives us a new power over our own surroundings in the world and in the end over ourselves. It is only one of the aspects of our cultural heritage that we have today as a factor in controlling and operating on us and our environment.

The problem of where the sciences fit into the colleges has long been a matter of discussion. There are those, of course, who feel that science in a sense is nothing more than the servant of technology; that science primarily is simply a science of techniques to develop more house gadgets or more household conveniences. That school of thought is fortunately very much in the minority and today surely represents no considerable fraction of our total.

Science and technology together represent two of the main cornerstones of our college and of our national life. The question of broadening the base of the science courses in our colleges has been a matter of much discussion before the war.

The Harvard Report that Mr. Avirett has mentioned spends a good deal of time discussing that point. It is more or less true to say that science as taught to our pre-professional groups—our engineers, those going into science, to some extent those going into medicine, has been primarily directed toward the techniques of making them professional workers in their field. It is partly true that we have not given a broader picture of what science really is in its fundamental philosophy.

The various attempts to broaden the base of our science courses up to now have primarily been in the nature of experiments. There are a good many colleges that have experimented with many types of general science course, of integrated courses, of core courses under various names, and we are now in the process of considering just where that type of approach fits into this new period that we are all facing.

Many or most of the colleges have committees of various types studying where this is going to go. I believe it is safe to say that most of us who have had some experience with it, do feel that while it has been an experiment, that there have been very many worthwhile features in such an integrated course which does attempt to broaden the base to include all of the sciences, and that there is within science itself a broad base which is in a larger sense a part of our whole liberal arts position.

How that is worked out in the future is going to be a matter in which various colleges will try different approaches, and that is a very healthy thing undoubtedly because we are in a position where no one really knows the complete answer of how we can solve this question as to methods of handling science—particularly for those who are not going to be professional scientists.

By and large our lawyers, our business men, our historians, our economists have been escaping from our colleges without having very much background in the sciences as a whole.

It seems very logical that we should make some attempt to broaden that base. Likewise, on the other hand, in the technical and engineering fields it is certainly true that we have not given as broad a background in the cultural subjects and in the arts and in literature, and, moreover, in the social responsibilities that those groups have in the future.

The opportunity that we have in this new period that is coming up, both in the colleges and in the secondary schools, is to combine the best features of all our basic avenues of knowledge so that our young men and women coming from these institutions will have the best possible basis in terms of our current knowledge.

None of us, I am sure, have any illusions that science is any panacea. For that matter have we no illusions that the other fields represent a panacea.

The fundamental need for man to cooperate and to live with his fellow men, the basic ethics and the basic relationships that human beings must have with each other and even more important, possibly, within themselves are the keystones from which all of our human behavior must spring.

Dr. Compton pointed out that in the early Greek period was the beginning of one golden age in science. Perhaps it is well to remember that in the golden age of Athens there were about 10 slaves for every free man; that that whole period was in a sense reared upon a slave civilization; that this good life that we all looked back to as being a high point in civilization was made possible because there were 10 men working as slaves for every free man who was enjoying this good life.

We are in a position in this country and gradually over the world to see a new era where that better life can be available for a much larger fraction of the people. We already, in a sense, have the equivalent of some 30 slaves working for each one of us here in the room from a mechanical energy or electrical energy standpoint.

Those are purely materialistic points of view. I am sure none of us have in science any idea or any illusions that they represent in any way one factor in what can be a better life. But until we do have this opportunity for a freedom from want, what I might call the brute struggle for existence, a better life for a larger fraction of the world is not possible.

We can now begin to see that through the efforts of science and technology on one hand and through the gradual growth of political and economic and of human relationships all over the world, the next 50 to 100 years should be an extremely interesting period out of this total of some hundreds of thousands of years of man's existence.

EVENING SESSION

FRIDAY, NOVEMBER 23, 1945

INTERNATIONAL EDUCATIONAL EXCHANGES: PAST EXPERIENCE AND FUTURE POSSIBILITIES

FRANK AYDELOTTE, *Director,*
Institute for Advanced Study, Princeton

At no time since the Middle Ages has any educational system been so truly international as ours has been during the 20th Century and especially in the period between the two wars. Few people realize how large has been the number of international fellowships carrying American students abroad and bringing students from other countries to the United States. The scholarships and fellowships supported by the Rhodes Trust, the Guggenheim Foundation, the Commonwealth Fund, the Commission for the Relief of Belgium, the American Scandinavian Foundation, and the appointments made by the Rockefeller Foundation and Carnegie Corporation have altogether included a large number of students. In addition there have been smaller but no less valuable schemes such as the Davison Fellowships, the Henry Fellowships, The Choate Fellowship to the Harvard Law School, the Procter Fellowships at Princeton, and the Riggs Fellowships at the University of Michigan. In addition to these the Institute of International Education has administered a very large number of individual grants. It has been estimated that in the years before the Second World War exchanges were in force between the United States and some 25 or 30 countries involving a total of some 6,000 to 9,000 students per year.

It may be expected that as the world returns to normal the volume of these exchanges between the United States and other countries will be maintained and possibly increased. It is common to say that the peace of the world will depend upon international understanding and that education is the best possible means to that end. Large schemes have been suggested involving government funds. It is already clear that students from all over the world will be eager for the opportunity to pursue their studies in the United States. American students, on the other hand, will be as eager as ever to study in Europe, Latin America, and the Far East and the probabilities are that considerable numbers will wish to study in Russia.

I believe firmly in the value of these educational exchanges. A period of study abroad will make our students better Americans as well as better scholars and hospitality shown by us to students from foreign countries is a benefit to us as well as to them. Scholarship

knows no national boundaries. The protest of American scientists against any attempt to maintain secrecy in the study of nuclear physics is an emphatic indication of the importance which they attach to the international exchange of scientific information. The atomic bomb itself was made possible by the researches of eminent scholars in many different countries. The ideal of scholarship and of civilization is universality.

For all these reasons it is in the public interest that educational exchanges be resumed and increased as rapidly as that can be effectively done. Experience has shown, however, that the mere provision of funds for large numbers of students to go from one country to another is not sufficient. It is perfectly possible for an international fellowship to fail in its effect, indeed to do more harm than good, unless it is administered with care and intelligence.

The first principle to be observed is that these opportunities are suited only for the best students. A high degree of intelligence and adaptability is required for success in studies in a foreign country. It is essential that the students should be endowed with character as well as brains. It is important that he or she should be well balanced nervously and should possess robust health. It is desirable, furthermore, that the student who undertakes to pursue his work in a foreign country should first have gone as far as possible in his own. It is not worthwhile sending students abroad to study elementary subjects. The eye sees what it brings with it the power of seeing. The better the student is prepared for the sojourn in a foreign land, the more profit he will get from the experience.

For these reasons I have myself always been doubtful about the wisdom of the exchange of students at the secondary school level. I know that such exchanges in certain cases have seemed to be successful, but my question is whether the same amount of money would not have produced much greater effect if the individuals concerned had been prepared for more advanced work.

A second important principle to be observed is that the student who is going abroad should have a definite plan of work; should know what he wishes to do; should have something more definite in mind than a vague desire for travel and for self-improvement. On the other hand, I think that experience has shown that it is not necessary that a student should be required to be proficient in the language of the country in which he expects to study. The quality of the student is more important than his linguistic equipment. The best students will learn the needed languages in their stride and no mere linguistic fluency will make up for lack of solid intellectual ability.

A third point which I should like to emphasize is the importance of supervision. Even the keenest and most adaptable students undertaking to work in a foreign country will need help in finding the right place, in making contact with the scholars who can help them most, in fitting their program into the facilities available. It is easy for even the best students to flounder in a foreign land and to waste precious time. Effective supervision will multiply for them many times the value of the opportunity.

All this means that mass methods are not effective in the administration of international educational exchanges. Instead each student should be treated as an individual. He should be selected with the greatest care and he should be assisted to find just what is best for him. Foreign study is a wonderful opportunity for intellectual leaders but not for the rank and file.

It is also important, in my opinion, that international friendship and understanding should not be made the main purpose of such an appointment. This understanding may well be the most important result, but it will be brought about most effectively if it is a by-product rather than the main purpose of the appointment. The first emphasis should be upon intellectual values. The student should have a definite plan of work and his main purpose should be to realize it. If, at the same time, he is an individual of broad interests he will not fail to make friends and to gain an understanding of the character of the people in whose midst he is doing his work.

I hope that the next few years will see increased emphasis upon international educational exchanges. I am more concerned, however, about quality than about quantity. I will confess to a prejudice in favor of privately managed foundations as against exchanges financed by government funds. I am deeply concerned that selection and supervision should be so careful and so wise as to prevent any such exchange from failing in its purpose and thus doing more harm than good. The administration of schemes of international study calls for wisdom and humanity rather than mere vague good intentions.

PROGRESS IN INTERNATIONAL CULTURAL AND EDUCATIONAL RELATIONS: INSTRUMENTALITIES AND NEEDS

GEORGE FREDERICK ZOOK, *President,* American Council on Education

One of the human failings, shared by almost every person, is a certain pride in the ability to prophesy accurately, even on gloomy topics. Possibly, therefore, by way of an introduction to this address you will pardon a short personal excursion of this character. In November 1941 there was read before the annual meeting of this Association a paper which I had prepared but unfortunately was unable to present in person, entitled "Education and International Welfare." In this address, sixteen days before Pearl Harbor, I stated:

"We are now apparently very close to war. Why? Not merely because we cannot do business with Hitler but because the totalitarian way of life, with its crucifixion of individual freedoms, its absurd doctrine of a master race, its worship of force, and its sneering rejection of democracy, is not our way. . . . I believe that (before this conflict is over) millions of individual Germans, Frenchmen, Englishmen, Italians, Japanese, and Americans are going to have to learn their bitter lesson through the age-old method of painful suffering and sacrifice before they fully appreciate that they are citizens of the world with all the implications which pertain thereto." So much for the prophecy.

Toward the end of the address, I made the further statement, "It is to be remembered that we are looking forward to a democratic world. Back of every effort in democratic government, whether on a national or international basis, there must be an informed public opinion. . . . Therefore in the structure of the future world organization there will be no more important provision than that which deals with freedom of communication and the right of world citizens to education. In contrast with the shabby provision made by the League of Nations for the International Committee on Intellectual Cooperation during the twenty years of its existence, there must be a body comparable in strength to the International Labor Organization which will correlate the work of the numerous international educational, cultural and scientific bodies, which will facilitate the extension of educational advantages to backward countries, and which will promote an understanding of world problems through all the agencies of education everywhere."

Well here we are six months from VE Day and three months since VJ Day. Do we have a world organization? Are there provisions "in the structure of the future world organization" for a

strong and adequate international education, scientific and cultural organization? And finally, do our leaders regard the provisions for international educational, scientific and cultural cooperation as no less important than other measures and activities looking toward world peace and our own national security?

Obviously the answer to the first question is "yes", and I am not one who believes that because of the atomic bomb or any other development it is outdated before it gets under way. The one important thing to remember is that this time all the nations are in it or will be before long. So long as the large and strong nations stick together and talk things through any imperfection or omission in the Charter of the United Nations can be corrected. Surely with tragic events so fresh in our memories the public opinion of the world will force our leaders to confer, and to agree.

Fortunately, too, we can give a resounding affirmative to the second question as to whether there is adequate provision in the world organization for international educational and cultural activities. Educators everywhere are familiar with the lamentable mistake made in the Covenant of the League of Nations in failing to recognize mutual understanding as the basis for world peace and in making no provisions therein to bring it to pass.

At San Francisco the State Department, as you know, invited forty non-governmental organizations to send consultants to advise with the American delegation. This experiment in public relations proved to be both reassuring and successful. The consultants representing the educational organizations determined if possible to secure a proper recognition of education in the Charter. The American delegation at first decided against it—presumably because of some indefinite fear that the bogey of international control of education might impede the acceptance of the Charter in the U. S. Senate. Later, after the consultants representing agriculture, business and labor organizations came to the support of the educational organizations, the American delegation reversed its previous position whereupon education by unanimous action was put into the Charter in several important places, including the following statements:

1. "With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote: . . .

   Solutions of international economic, social, health and related problems; and international cultural and educational cooperation. . . .

2. "The General Assembly shall initiate studies and make recommendations for the purpose of:

   Promoting international cooperation in the economic, social, cultural, educational and health fields, and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

3. "The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the Members of the United Nations, and to the specialized agencies concerned."

4. One of the basic objectives of the international trusteeship system of the Charter reads as follows:

   "To promote the political, economic, social and educational advancement of the inhabitants of the trust territories, and their progressive development toward self-government or independence. . . ."

Thus we have in the basic international Charter a recognition of educational and cultural cooperation as fundamental to a just and permanent peace. Both the General Assembly and the Social and Economic Council, which constantly grew in stature as the San Francisco Conference proceeded, are the agencies of the United Nations charged with the responsibility of seeing that this objective is implemented. Moreover, in this manner education is associated with a host of other humanitarian objectives all of which will be stronger and more effective because of this association.

While the San Francisco Conference was in session, the House of Representatives on May 22 and the Senate on May 24 passed the Mundt and the Fulbright and Taft resolutions, respectively, recognizing that "the future peace and security of the American and all other peoples rest upon the achievement of mutual understanding among the peoples of the world" and urging the participation of the United States Government in the organization of a specialized international organization for Educational and Cultural affairs.

Such an international conference was called by the British government in London at the beginning of this month. Happily the Conference has just completed its labors and the new international convention providing for Educational, Scientific and Cultural cooperation was signed by the representatives of forty-four nations at the conference one week ago today.

The full text of the London agreement has just been made available. The name of the new organization is to be the "United

Nations Educational, Scientific, and Cultural Organization." It is to be located in Paris. Members of the United Nations are automatically given the right of membership in UNESCO but other nations may be admitted under terms to be agreed on with the United Nations Organization.

"The purpose of the Organization," so the Charter declares, "is to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedom which are affirmed for the peoples of the world without distribution of race, sex, language or religion by the Charter of the United Nations." The new organization is specifically prohibited from engaging in activities "which are essentially within their domestic jurisdiction."

The structure of the new international organization consists of a General Conference to which each member state shall appoint not more than five delegates who are to be selected by the respective governments after consultation with a national commission or with educational, scientific and cultural bodies. Each delegation has one vote in the General Conference.

In this connection it is interesting and important to point out that "Each member state shall make such arrangements as suit its particular conditions for the purpose of associating its principal bodies interested in educational, scientific and cultural matters with the work of the Organization, preferably by the formation of a National Commission broadly representative of Government and such bodies." This seems to me to be a very significant recognition of the important role which voluntary educational and related organizations play in the formulation and promotion of education policy. I trust that with respect to this matter the educational associations may be fully aware of and equal to their opportunity and responsibility.

The constitution of the new international organization also provides for an executive board of 18 members to be elected by the General Conference for terms of three years and a Director-General with such staff as may be required.

In pursuing its work UNESCO may make arrangements to cooperate with other specialized intergovernmental organizations and may also consult and cooperate with non-governmental international organizations interested in matters of mutual concern.

The United Nations Educational, Scientific and Cultural Organization becomes a fact when twenty nations have ratified the provisions of the present international convention. In the meantime an interim commission has been established to prepare business for

the first meeting of the organization. Included in the agenda for this first meeting is the following specific instructions: "The (preparatory) commission shall appoint a special technical subcommittee to examine the problems relating to the educational, scientific and cultural needs of the countries devastated by the war, having regard to the information already collected and the work being done by other international organizations, and to prepare as complete a conspectus as possible of the extent and nature of the problems for the information of the organization at its first conference."

Confronting the educators of the United States, therefore, at the present time is the deep responsibility of seeing to it that the provisions of the new organization become speedily and favorably known to the people of the United States, including the members of the U. S. Senate, in order that this country may be one of the first of the twenty to ratify the convention. Further, I am sure that we all ardently hope that Russia, although unrepresented at the London Conference, may also become a member of the new international organization promptly.

The fact that Russia was not represented at the London Conference leads me to recall the third question I raised a short time ago, "Do our leaders regard the provisions for international educational, scientific and cultural cooperation as no less important than other measures and activities looking toward world peace and our own national security?" Presumably "yes", because in the resolution quoted a few moments ago Congress has already recognized that "the future peace and security of the American and all other peoples rest upon the achievement of mutual understanding among the peoples of the world." Assistant Secretary Benton recently stated before a Congressional Committee that "we in the United States have a new challenge—and a new and unprecedented opportunity—to exchange information, learning and skill with the people of other countries, and thus not only to build a firmer foundation for our commerce but to provide that broad base of mutual understanding which makes for world peace." Finally, President Truman in a letter to the speaker dated September 21, 1945 stated:

> "I can conceive of no more important endeavor than to make the mind of man a constructive force for peace. In my address last June at San Francisco, I said: 'We must set up an effective agency for constant and thorough interchange of thought and ideas. For there lies the road to a better and more tolerant understanding among nations and among peoples.'
>
> "Those words still stand. World peace can be maintained only by the United effort of all peoples. But men work to-

> gether most effectively when they have learned to think together and feel together. Without common knowledge, common agreement is difficult or impossible.
>
> "The proposal for such an organization therefore has my full support. It is essential that our citizens give as widely as possible of their thought and experience in shaping the plans for this new agency. The American Council on Education and its many affiliated organizations and institutions may make a signal contribution to this end."

The only trouble with the situation is that other actions not well coordinated with these basic principles speak more loudly at the present time. I refer to our interventionist policy in North China, to the hue and cry for compulsory military training in this country, and to the policy of secrecy with respect to the atomic bomb. I do not pose as an expert in any af these fields which are certainly very complicated, but I am very sure that the Secretary of War was right about one thing when a short time ago he was reported to have testified before the House Committee on Military Affairs that "In the world today it's military power that talks." Every student of history knows that an armament race between and among great powers is about the surest method of producing war. Over and over again we decried these situations in Europe which led us into two World Wars. Yet only a few short months after VJ Day we have so far forgotten our announced ideals before and during the war as, in my opinion, to appear before the rest of the world as depending on power more than on mutual understanding to preserve the peace of the world. Fortunately a forward, though belated, step to place the peaceful intentions of our country properly before the world was taken at the recent conference of President Truman and Prime Ministers Attlee and King who agreed to the following statements on the atomic bomb:

> "We believe that the fruits of scientific research should be made available to all nations, and that freedom of investigations and free interchange of ideas are essential to the progress of knowledge....
>
> "We are . . . prepared to share, on a reciprocal basis with others of the United Nations, detailed information concerning the practical industrial application of atomic energy just as soon as effective enforceable safeguards against its use for destructive purposes can be devised."

This statement is like a breath of fresh air in an otherwise murky atmosphere.

Now if the President and the Congress in the same spirit will appoint a representative national commission to examine into the

usefulness of compulsory military training in the age of the atomic bombs, and at the same time put forth vigorous efforts both by precept and example to induce all nations the world over to give up enforced military service once and for all, in accordance with House Resolution 325, now resting peacefully in the House Military Affairs Committee, another threat to world peace will be postponed, enabling us to get on with the far more pressing need of building an effective international structure through the United Nations and the supporting international bodies, including in particular the new United Nations Educational, Scientific and Cultural Organization.

I wish I might adequately bring to you my feelings as to the seriousness of the present situation. Those of us who have dedicated our lives to the advancement of civilization and world peace through education are often praised for our efforts, even by military leaders, but quite properly we are also reminded by these same gentlemen that in the past education has failed miserably in preventing the most devastating wars.

But it is equally true that men of other professions, including the military and naval leaders, frequently fail to discern the implications of new discoveries and inventions. The airplane was an eloquent and bitter example. Today we are told over and over again that there is no known adequate defense against the atomic bomb now only in its infancy and that in the next war anyone who wishes comparative safety should locate his house 200 miles from any large city. In view of this situation is it not crystal clear that military power as now conceived is a less dependable reed on which to lean and that world organization, including education, has suddenly become not merely a pious zeal but a grim practical necessity, if we expect to live as civilized men rather than burrowing moles?

Gradually the implications of the atomic bomb are becoming a bit more clear to discerning individuals. A large group of scientists have formed an atomic bomb association to insist on and to promote ardently the use of our new knowledge for international humanitarian purposes. Someone has facetiously remarked that the atomic bomb has suddenly made citizens out of scientists! I hope that somehow it may do the same thing to the rest of us.

What that means is that we have *got* to make the United Nations work including its provisions for educational and cultural cooperation; we have *got* to get the new United Nations Educational, Scientific and Cultural Organization ratified in the United States Senate in order that it may begin work at the earliest possible time; and it means that the teachers in our most renowned universities and in every little red school-house have *got* to accept the responsibilities to be both intelligent about and zealous for international

collaboration and cooperation. For it is my earnest conviction that the future peace of the world depends more on the school teachers than it does on the generals and the admirals.

It seems to me therefore that every educator and every educational organization should be active with respect to this responsibility, each in its own way. Every effort, no matter how small, adds to the sum total which ultimately produces that solid foundation of international mutual understanding upon which we must depend for world peace and security.

I wish therefore to describe briefly several of the Council's activities, which I hope you who belong to this Association, one of the valued members of the Council, will think of as a part of your accomplishments.

About two years ago the Council completed a thorough survey of the textbooks and other teaching materials used in American schools for the purpose of seeing what they say and do not say about our Latin American neighbors to the south of us. As a result of this survey, now published and widely distributed, it is inconceivable to me that our textbook writers and curriculum makers will ever again be guilty of so many sins of omission and commission.

With the funds from the federal government we have recently sent a series of pamphlets in Spanish and Portuguese descriptive of the various phases of American education to the several Latin American countries. These pamphlets were edited by Professor I. L. Kandel. Also we have distributed to them an extensive series of filmstrips, with accompanying teaching aids, which portray various aspects of American life—not in their extreme manifestations but as true to normal life as it is being lived here as we could make them. On the other hand, a series of beautiful and very useful color film slides, descriptive of various aspects of life in Latin American countries, are now available to show the school children of this country how our neighbors to the south of us work and live and play. These contributions have been received most favorably both here and in Latin America and I believe that they have helped appreciably in implementing the good neighbor policy.

Then too we have helped, again with federal funds, a number of struggling schools, sponsored by American citizens in Latin America, to get on their feet and to serve as better examples of American education, both for the children of our citizens and of the nationals. During the two years ending June 30, 1945, in addition to a great deal of professional assistance, $184,224 were distributed to ten such schools. I wish I could pass on to you a small measure of the gratitude expressed to the Council's representatives for the magnificent service which these schools are rendering in countries

which in many instances are unable to support a modern program of education for all their children. I can only say that to those who have been active in this program, including Dr. E. D. Grizzell and Dr. Henry Grattan Doyle, both prominent in the work of this association, it has been a most gratifying experience.

Then there is Canada to the north of us. Schools on both sides of the border do none too good a job in portraying each country, respectively, as it is. Hence, notwithstanding the fact that we may rightly take pride in the fact that for more than a century we have lived along side one another in an unfortified border of 1,500 miles, there is still every reason for better mutual understanding. Hence a year ago this past summer the Council initiated the appointment of a Joint Canada-United States Committee of educators, which has already issued and circulated widely in both countries a very useful and stimulating pamphlet entitled *Education for Mutual Understanding and Friendship between Canada and the United States.* Among the other projects planned for the immediate future is a joint survey of what is taught respectively in U. S. History courses about Canada and in Canadian courses in Canadian schools and colleges about the United States. It would be difficult to estimate the extent of increased good-will on both sides of the border which I am sure will result from this effort in international cooperation.

But lest you assume that all of our work has dealt with the American continent let me remind you that the two pamphlets *China's Gift to the West* and *Chinese Writing,* issued by the Council two years ago, fill a most interesting niche in the aching void of teaching materials about the Orient which now looms so much larger in importance than ever before. At present too, with a fund of $75,000 we are arranging to help in the rehabilitation of a number of American-sponsored schools and colleges in China which have been devastated by the war. Again, it would be difficult indeed to measure the increased understanding and sympathy on both sides of the Pacific which will result from such activities.

And now finally may I mention briefly our newest venture in this far-flung program—a study of the provisions of education in the Arabic-speaking countries of the Near East. This study is under the direction of another of your own number, Roderic D. Matthews, on leave from the University of Pennsylvania. Notwithstanding many handicaps, Dr. Matthews keeps us well informed concerning his interesting and even exciting experiences in a little known but critical spot of the international scene. The survey is an example of the many ways in which the whole world can benefit from an exchange of information about the character and facilities for education in any part of the globe.

You will note from these examples of the Council's activities in the international education field that the funds in support of the program have come in part from the federal government. Other activities carried on, for example, by the American Library Association and the Institute of International Education have been similarly supported. There are powerful reasons indeed why in a country committed to decentralization in education the federal government should request comprehensive educational organizations to undertake a very substantial part of this growing program in educational and cultural relations. In this connection may I point out that in May 1944 the representatives of the major organizations, which have so far been involved in this program, addressed a statement to the Division of Cultural Cooperation of the State Department which contained the following recommendation:

"They strongly recommend that, in the operation of any Government-sponsored program of international cultural relations, recourse should be had so far as possible to non-governmental agencies, non-commercial in character, representative of American interests in their respective fields, whose objectives are purely educational, scholarly and scientific, and whose experience qualifies them to serve the Government within their respective fields of activity."

Lying back of this recommendation is the deep feeling that in this country we should not follow the example of many other nations, Germany being a flagrant illustration prior to and during the war, of pursuing policies in international educational and cultural relations which are open to the charge that these activities are conducted for political or diplomatic ends. I am glad to say that these views have been received most sympathetically in the State Department. I trust that nothing occurs to modify the present policy of conducting these activities largely in cooperation with national voluntary educational agencies. I assure you that as long as the American Council on Education has anything to do with these various aspects of the international educational program it will attempt to carry them on in the true spirit of American education.

In conclusion may I say that the tremendous responsibility of building and preserving world peace and security which now confronts every educator and teacher throughout our broad land should make us very humble indeed, but also most determined. At long last we have in the Charter of the United Nations and in the new International Organization for Educational, Scientific and Cultural Cooperation the instrumentalities to secure and preserve peace. Even more important we have in our classrooms the youngsters. They are the hope of the future. As I stated in the conclusion of my address to you four years ago, it was "a young man, Elihu, who pointed out

to Job and his bearded friends the fact that it is not always given to the oldsters to see 'the bright light which is in the clouds'. Rather the vision often comes to those who are not yet weighed down with the cares of the world and have not yet grown cynical with age. Youth, then, now as always, may well share with civic leaders and teachers responsibility to participate in the making of the new world and in the educational program necessary to train citizens to live in it."

DISCUSSION

Professor GRAYSON L. KIRK, Columbia University

Both aspects of this problem have been considered before you tonight in such realistic detail that I feel there is not a great deal that I can add to what has been said.

Seriously, we are in the midst of what may prove to be one of the most critical times in the history of the United States and of the world. All of us thought during the war period that it was a time of utmost crisis, and it was. All of us rather fondly assumed, without reflecting on the lessons of history, that once the war crisis was over we would be in a much happier situation where our problems would be simpler and easier to solve.

But today we are drifting gradually into a situation that presents a very great danger to our future. The wartime collaboration which bound us and our allies together for the purpose of waging a victorious struggle against a common enemy has now disappeared or seems to be in process of disappearing. Little acts, little things on both sides, on all sides, cause us to lose the feeling that we must bring ourselves into the same kind of close collaboration with our allies for the solution of peacetime problems that we found we were able to achieve in the face of the war challenge. In consequence, we have fallen back on that rather cheap type of recrimination in which we say that *we* are making all the gestures, that *we* are making all the offers; that *we* are outspoken in our generosity and in our desire to collaborate, but that our former allies, or some of them, have shown no such willingness to collaborate with us.

This latter statement is not true, in my judgment, because I do not think the United States is contributing anything more to the clarification of this situation than any of our former allies—Russia included.

If, as I believe profoundly and as has been said here by the last speaker so well, in essence the future security of the United States depends upon our political arrangements rather than upon our military strength then it is none-the-less true that our national future will depend primarily on the extent of our skill, on our finesse and on the wisdom with which we manage to approach the major political problems of international peacetime organization. Therein lies our security.

This is a challenge which is before us as educators because, although we have a United Nations Organization which I think is as good as can be had within the limits of the political realities of the world today, there is all too great a tendency widespread in many

countries to believe that this organization, now that it is set up, will be self-operating.

You and I know, or we ought to know, that there is no such thing as a self-operating mechanism of this kind. If the UNO is to succeed, it can do so only from the impulsion that we and the peoples of the other countries of the world will give to it. It is not enough merely to create a charter. We must continue our efforts in order to bring about that kind of attitude toward international collaboration which alone will make the new machinery work effectively.

I submit to you that we cannot do this by resting on our laurels, once the organization is created, and then be surprised when it fails to work.

On the other hand it will be equally fatal to depend on that kind of mushy sentimentality about international cooperation which has been so characteristic of the American people in the past. I believe as profoundly as any one in this room in the imperative necessity of international cooperation, but I do not believe we advance ourselves toward that goal measurably when we talk in terms of vague and loose sentimentality about the necessity for international collaboration and then stop.

Mr. Aydelotte has said this evening, I think with a great deal of wisdom, that he believed that students who were sent abroad were better emissaries of international understanding as they acquired intellectual content and ability and not merely because of the vague sentimentality they took with them. So, it is with your own students in your classrooms, and so I think it is with mine at Columbia; they accomplish little by merely learning to talk vaguely about the need for international understanding. I think, on the other hand, that thereby we may actually do a great deal of harm because the only real way in which we advance ourselves toward the kind of understanding that will make the United Nations Organization work is through a realistic appreciation of the needs, the problems, and the viewpoints of other countries *vis-à-vis* the United States.

For example, we cannot understand how the Russians view us as long as we look at the problem of Russian policy through American eyes. We must somehow teach our students to make that kind of transition to look at Russian policy *vis-à-vis* the United States from the Russian point of view.

This can be done only by a factual study of the historical traditions of the past and of the specific and concrete aspects of present day problems. Only through serious study, and not emotional exhortation, can we manage to achieve that basis of understanding which will enable our own Governmental leaders, not to go into organizations imbued with good-will and nothing more, but to go into

international meetings with a fairly sound understanding of what their colleagues from other countries believe and why they believe it.

Only on that basis, it seems to me, can we collaborate progressively in the search for areas of agreement on policy matters which alone will implement effectually the international organizations of our time.

We must produce a desire, not merely to assert our points of view and then to try to force others to accept them, but a willingness to compromise in the interest of reaching an area of agreement which will enable us to operate all of this shiny new international machinery which we now have or are in process of creating.

This is the job that is before us as educators. It is exceedingly difficult, but if we can succeed, we shall have gained the greatest victory that any people could gain in bringing an end to this dangerous lag between social and political organization and technological development. If we fail, well, I do not think any of us need to worry about it then.

MORNING SESSION

SATURDAY, NOVEMBER 24, 1945

THE HARVARD REPORT— A SHORT INTERPRETATION

JOHN H. FINLEY, JR., *Eliot Professor of Greek Literature,* Harvard University

It is a great privilege and honor to speak to you about the Harvard Report, though I do so with some hesitation. Intense as has been our study during the last two years in Cambridge, it has lasted only two years, and many of you have been concerned with similar subjects much longer. And, though we consulted a great many people, yet the attempt to transcend one's limitations is the oldest of intellectual problems, and our Report would be very remarkable indeed if we had solved it. For both these reasons, I ask your indulgence.

Concern with general education is far from new. The Harvard Report is one stage in an evolution which preceded and will pass beyond it. The reasons for this concern are to be found in the character of modern life. One could cite many such reasons, but two have been of chief importance. They are, first, the staggering growth in the number of persons being educated, and, second, the equally staggering growth of knowledge. The first of these forces has affected chiefly the secondary school, the second chiefly the college, but both have been felt in each. These forces are clearly in some sense facets of each other, but it will be well to say a few words of them separately.

As for the first, the growth in numbers can be illustrated in many ways. We chose for illustration the period of seventy years from 1870 to 1940, during which the population of the country as a whole slightly more than tripled. But during this same period the population of the high school was multiplied 90 times over and that of the college 30 times.

Now, the important thing to observe is that the effect of this titanic increase far outran even the numbers involved. It extended to the whole plan and scheme of schooling. In 1870 that scheme was clear. It looked to the favored few, socially and intellectually, who would go on to college and to positions of leadership in the professions and in business. Among them were of course poor boys, but they, even more than the others, wished to better themselves through education, and no doubt nine times out of ten did so. The scheme was admirably simple. One trained the taste by the Greek and Latin classics, the mind by mathematics, the speech by rhetoric,

the standards by Christian ethics, and turned out the Christian gentleman. In retrospect, this delightful clarity rouses some wonder and not a little envy. Yet it was precisely this scheme, or its modern counterpart, which the huge growth in numbers destroyed.

The reason is that there now no longer came to the high school young persons of fairly uniform background and fairly high ability, but of all backgrounds and all abilities. They could not all be educated essentially for high places of one sort or another. Rather, they had now to be educated for the totality of American life. The high school accordingly ceased to be primarily a college-preparatory school; it prepared primarily for life itself. One of the more interesting discussions which I recall in the Committee had to do with this question, how far education is concerned with a person's bettering himself. To some extent it must always be. A democratic society especially depends for its existence on this process of fermentation, this constant movement up from the bottom and down from the top. Yet to think of education as looking wholly or even largely to this purpose is certainly mistaken. It must look at least equally to a person's happiness and effectiveness in whatever lot his life is cast.

The chief effect, then, of the vast growth in numbers was a growth of the curriculum designed to match the hopes and needs of the immensely varied young people who now attended high school. This broadening of the curriculum is often, though falsely, described as chiefly vocational in intention. No doubt there is some vocational intent, but far the more important motive for the introduction of new courses was the wish to appeal to students' interests, to meet them on their own ground, and to draw upon their hopes of their future. This response of the school-system to the needs of students does it immense credit. It was a response prompted by educational and humane motives of a very high order. Yet precisely this multiplication of courses in the high school, admirable in intention as it was and is, has raised other problems, which are in turn the problems of general education.

The reason for the multiplication of courses in the high school was, as said, the desire to meet the differing interests and capacities of students. But there is a sense in which students are less different than similar. They are similar as heirs of a common culture and future citizens in a common country. The very concept of a society implies a bond of connection transcending differences of outlook, gifts and occupations. Insofar, then, as the huge modern curriculum emphasizes the differences among students, it fails to emphasize their commonality, and it is this commonality with which general education is concerned.

The second main reason for the increasing concern with general education is, as was said at the start, the equally titanic growth in modern knowledge. As the effect of the growth in numbers has been felt chiefly in the high school, so that of the growth of knowledge has affected chiefly the college. It has shown itself in college also in a multiplication of courses, but the intent of this multiplication was somewhat different. It was designed less to meet the varieties among students (which in college, though large, are less immense) than to permit students to master the varieties of knowledge. Such mastery implies specialization, which now became increasingly common both as between different types of colleges and as between different fields or departments within any one college. The result was that, in those capacities which divide man from man, students are very well trained in American colleges. The future engineer, the future physician, the future lawyer, the future scholar, all find useful beginnings in their separate callings. Yet this gain was bought at a price—the price that courses should be increasingly directed to the specialists. Though commonly required to take a part of their work in different areas, students found it increasingly hard to do so profitably. The young English scholar taking his required course in science found that he was not learning science but only a first course in chemistry or physics which looked to further courses and would have value only if it were followed by such courses. And the same was almost as true of the young scientist taking his required course in English. Hence in college, as in high school, the question arose with increasing force: is there not equal responsibility for that which unites man and man as for that which divides them? In short, the need for general, as opposed to special, education seemed as clear, though for different reasons, in the college as in the high school.

What is the answer to this need? Mr. Demos, who follows, will sketch more fully than I the answer given in our Report. As was said, the Report draws heavily on the ideas and experiments of others. On many crucial points, it also finds hope only in future experiment.

What, if anything, it can add is in two main ideas, of each of which I shall say a word.

The first of these ideas is, so to speak, of a *vertical* as opposed to a *horizontal,* structure of general education. And our advocacy of this vertical structure rests in turn on a theory of heritage and change. To speak for a moment simply of the college, the term "vertical" means a scheme of courses in general education continuing through all four years and not, as now at some institutions, confined to the first two years. Thus we urge for Harvard a first group of courses in general education for freshmen and sophomores and a sec-

ond group for juniors and seniors. But, even as we believe that juniors and seniors should take time from their special work to consider more general relationships, so we believe that freshmen and sophomores should not be concerned wholly with these general relationships but should already be laying the foundations of their special interests. We urge, in sum, that general and special education proceed *pari passu* throughout college, indeed throughout high school.

This position follows from the view that all civilized societies, and ours not least, depend at one and the same time on received ideas held in common and on innovation, on heritage and on change. We roughly equate general education to heritage and specialism to change. This equation is certainly incorrect as regards the greatest and most widespread innovations. Neither a Lincoln nor a Lenin based their achievement on any special study. But lesser innovations commonly imply such study. Even Socrates pursued in youth the new dialectic and argumentation of his times, and needless to say, modern scientific advances rest almost wholly on specialism. On the other hand, such special studies are commonly too detailed to embrace even neighboring fields, much less distant fields. Yet insofar as any good society must imply some understanding of the totality of the human mind and spirit, then this totality is likewise the concern of education, as the heritage and bond of society. General education, though it may look to unsolved problems, on the whole necessarily presents knowledge as it is. It is therefore primarily the vehicle of heritage, as specialism is primarily the vehicle of change.

Here, then, is our first main thesis: that general and special education must not be separated from one another but must be pursued so far as possible at the same time, since heritage and change likewise exist together and at the same time in the life both of the individual and of society.

Our second main idea has to do with the form and nature of general education, and it is of this especially that Mr. Demos will speak. There appeared to us to be two chief ways of giving instruction in the great areas of knowledge. The first of these, which we reject, aims at coverage and encyclopaedism. The second, which we advocate, is harder to define. Like the point just discussed, it too involves a theory—in this case, a theory of the nature and subject-matter of knowledge. Most briefly put, the theory conceives of knowledge as a spectrum at one end of which is science, and at the other end the arts, with the social sciences between. At the end where science is uppermost, fact is of chief importance; at the other end, value. The former has therefore primarily to do with constatement and prediction; the latter primarily with understanding and

evaluation. The middle region of the social sciences involves both these aims. (It should be said by way of interjection that neither extreme of the spectrum is thought of as concerned purely with the aims described. Science, though chiefly concerned with fact, involves certain axiomatic faiths not subject to proof and also elements of value, aesthetic and moral. Conversely the arts, though chiefly given to value, are obviously involved in fact.)

But if knowledge follows any such arrangement, then it is clear that courses in the great areas of knowledge should aim less at encyclopaedism than at an interpretation of the kinds of knowledge involved in the separate areas. All the areas together embrace the totality of truth—factual, social, spiritual—which the human spirit recognizes. Each area stresses its peculiar part of truth and presents truth by its peculiar methods. The best methods of treating the areas would, in our opinion, accordingly be one which, by means of selection rather than by complete coverage, attempted to make this fact clear. Thus conceived, such courses would demand strict choice of material for the purpose of representative example and basic illustration. General education, so defined, would be philosophical in spirit, in the sense that it would be concerned with the face of truth seen by the different areas.

With this very inadequate treatment of our two main theses as regards the college, I conclude with a few words, equally inadequate, on the high school. The reason for first discussing the college was that one could illustrate somewhat more clearly at that stage the principles applied in the Report to earlier stages also. Thus what I shall say of the high school is largely a development of the points already made.

In the first place, the concept of general education as a continuing strand pursued simultaneously with special education applies, and most forcefully, to the high school. The heart and essence of the Report is precisely this concept of general education as a uniting strand—uniting in the sense that it gives common ground between all students irrespective of the type of diploma for which they are working or of the type of high school in which they are enrolled, uniting also in the sense that it gives common ground between the great majority whose education stops at high school and the minority who continue their education further. To this end, we urge that at least half a student's work in high school be given to general education in the three areas of the sciences, the social studies, and the humanities (in the case of those whose formal education stops at high school, more than half). Even this expense of time is short enough to give to students some knowledge of what unites them as future citizens of a common country and sharers of a common culture.

What form, then, should general education take in high school? Here we approached a problem of which neither we nor, so far as we could gather, others know the full answer or even, it sometimes seems, the direction in which the answer lies. Few problems call more cryingly for solution, and few concern more closely the future of democratic society. In this point our Report was very generally misrepresented in newspapers and magazines.

The problem can be stated somewhat as follows. On the one hand, the vast growth of the high school has brought to it persons of very varied intelligence and background, and this fact, as said earlier, has been the real cause of the immense expansion of the high school curriculum. On the other hand, all these persons, however varied their gifts, will equally become citizens and hence stand equally in need of some understanding of our society and culture. Now most accounts of the Report said that we advocated a core of studies common to all students. That is in one sense quite incorrect. To urge exactly the same studies for all is to fly in the face of the main fact about the modern high school: namely, the vast diversity of its students. It is inconceivable that a core of exactly similar studies would be advantageous for everyone. What we in fact urged was a *common scheme* of studies for everyone, which scheme should demand of most students more than a half their work in the three previously described areas of the sciences, the social studies, and the humanities.

There is not time to describe our recommendations for the more intellectual and more bookish. These recommendations are in any case similar to those made for the college. They emphasize again not encyclopaedism, but strict choice of material for the purpose of illustrating the distinct methods and distinct subject-matter of the different areas. Moreover, the chief problem is not with the gifted but with the ungifted and unbookish. They are the people whom in other countries the Nazis and the Communists have simply indoctrinated. Yet they are as valuable and as upstanding members of society as anyone else. The great problem, then, is to find methods of general education as suitable for them as are more conventional methods for the more bookish. It is not too much to say that the future of our society depends on our success in discovering these methods. In short, we recommend different adaptations of a similar scheme for different needs.

Finally, even as we believe that special should accompany general education in college, so we believe for the high school. Beyond the core of general education there would accordingly be place and need for the various special studies which prepare the great majority for trades or farming or commerce and the minority for college.

General and special education thus together represent men's unitedness and their separation, their unitedness as human beings and as Americans, their separation as pursuing any of the myriad activities that comprise the common life.

FURTHER REMARKS ON THE HARVARD REPORT

RAPHAEL DEMOS, *Alford Professor of Philosophy,*
Harvard University

The function of a second speaker, in a meeting where the two speakers discuss the same subject, is like that of Lazarus at the feast. Professor John Finley has spread a rich fare before you, and I, like Lazarus, will take up the crumbs that have fallen from the table.

A critic of the Harvard Report said that it reminded him of a mountain laboring to produce a mouse. I agree with the critic. What is wrong with a mouse? The mouse is the symbol of liveliness and mobility; and when it runs around in the night I have known my family to get terribly excited. Perhaps there is something in the Report which woke up those who were slumbering in the night of ignorance. I like mountains too, being a mountain-climber myself. A mountain is the symbol of perspective. When you look around from the top of a mountain, you may see nothing new, especially if the mountain is in familiar territory; nevertheless you discover hitherto unnoticed relationships; and the old landmarks fall into new patterns.

Here is the view from the mountain top. Before the days of President Eliot, education was pretty homogeneous both in school and college. The students were drawn from a fairly unified group of the well-to-do; they were the potential leaders in the professions and in trade, and they all had a uniform classical curriculum. That traditional pattern was broken by Mr. Eliot at least in the colleges. The elective system which he introduced seemed to imply that every subject is as good as any other. I do not think Mr. Eliot believed that. He wanted to bring science and specialism into the curriculum; and to bring these in, he had to break down the whole fence.

The result was the grand era of semi-anarchy. That was the second stage. And now we are moving into a third era, which superficially looks like a return to the era before Eliot. In order to overcome the dispersion, the Report proposes a homogeneous program of general education. But there are important differences. Whereas the early program was primarily humanistic and classical, the new proposed program includes science and other subjects as well. Secondly, general education will not at all take the place of the specialism that came in with Eliot; it will only supplement it. In the Harvard Report on General Education there is no hostility to the idea of majors, of concentration, and of specialism. The Harvard Report aims at a judicious balance of general with special education.

I come now to the program of general education, whose basic concept is expressed in the following three propositions. Man is a

specialist animal, man is a political animal, man is a choosing and valuing animal. These three platitudes underlie the three general courses in the program; a general course in the natural sciences, a general course in the social studies, and a general course in the humanities. First, a word on man as a specialist animal. As you look around at human beings in a community, your first impression is that they are all specialists, each one being occupied with a particular profession, business, job, and so forth. Practically everybody, whether he goes to college or school or not, ends up as a specialist. In American society, there is no place for the mere amateur. Now, this is as it should be; we must be specialists not only for the selfish interest of earning a living, but in order that the work of the world should be adequately performed. Knowledge advances when it is specialized; work becomes more efficient when it is specialized. But there are corresponding limitations to specialism.

We all know how professional groups are apt to be infected with narrowness and rigidity. They tend to become slaves of routine. An acquaintance of mine who was in Washington during the strenuous years of the war tells me that what impressed him most was how people arranged themselves into special groups and organizations which high-pressured their own narrow ends. Teachers and educators will come to Congress and speak as teachers defending their own interests; doctors as members of the medical profession, lawyers as members of the bar association, businessmen and labor men as groups each defending its own union. In this tendency of people to break society into a war of competing lobbies, my friend said that the much-scorned politician sometimes stood out as the only one who was above the battle of conflicting groups. This observation relates to my second proposition that man is a political animal. But I have not finished yet with my remarks on man as a specialist, particularly in the educational arena.

In college our teachers are specialists, and naturally think of their students as potential specialists. A student will of course major in a particular area. There is intensity of concentration with an attendant intensity of exclusion. In order to concentrate greatly, we have to exclude a very great deal. Now, there is this paradox—that while the human individual, both inside and outside college, is a specialist animal, he is also a social being. I remind you of the hoary platitude that man is a political animal; this means that man is engaged in human relations, not that he is an incipient politician. He makes decisions all the time not about specialized matters but about the ordinary affairs of living. While he is continuously a specialist he is at the same time continuously an amateur in that he is engaged with the broad area of living in society.

I think that specialism ignores just this point, that man is here to live—that he must master life and not merely a technique. Moreover, life is an art but it is not a technique. The problems of human relations involve cross-bearings among areas, and do not come under any one specialism. Here we come to the essence of general education. General education is the preparation of man for human life and human relations, and for all those activities in which we do not function as technicians, but simply as human beings. It is the preparation for citizenship. This is a perfectly definite objective, even though there is no specialized technique for attaining it. I say this because in colleges sometimes the alternative to concentration is supposed to be dispersion. The student will major in a particular field and then, in order to "broaden" himself, he will take any and every course that may strike his fancy, somewhat like Stephen Leacock's horseman who advanced simultaneously in all directions. Yet general education is not dispersion; it is concentration, although of another sort.

Another usual fallacy is to oppose the humanities to the sciences; to identify the humanities with liberal education, and so by implication, to regard the sciences as inhumane. This is a mistake. The difference between general and specific education is not in terms of subject matter. There is a humane study of the natural world, and there is specialized study in the humanities; for example, philology in literature, logic in philosophy, and in general, all that goes under scholarship, are instances of specialism. Or sometimes we invert the distinction, as when a student who works hard in the sciences, proceeds to take a course in music or the novel in order to rest his mind, just as a tired businessman will go to a musical comedy in order to relax. In this attitude there is an implied contempt of the humanities as being something genteel and perhaps frivolous or at least insubstantial. But general education calls on the full resources of the mind just as much as does special education, although in a different way. The real difference must be sought elsewhere; it consists in the mode of thinking employed.

The ideal of specialism is the ideal of scientific method in any area, whether it be the area of the material world or of the imagination. Scientific method is the method by which, when faced with the confused manifold of experience, you break up, you distinguish, you isolate and abstract. It is the old idea of the kings, that you must divide in order to conquer. In the confused manifold of experience, facts come to us as interrelated and intertwined. The function of scientific method is to take these facts apart so as to see them more intensively and to grasp their inner structure. By such abstraction, knowledge attains precision and rigor. Neverthe-

less, as I have already said, this method fails in ordinary situations of living.

Consider, for example, an engineer, who has been trained naturally to deal with situations which can be reduced to precise formulations and which can be measured exactly. Suppose now he is called upon to make decisions in matters of policy—policy in business, like buying a house, or policy in politics, like whom to vote for, or policy in ordinary human relations, like choosing a wife.

Now, the variables here are many. They are so numerous, and their interactions are so complicated, that it is impossible to calculate the results exactly and with certainty. Moreover, living situations are unique; they do not repeat themselves; and so they cannot be neatly classified. What is harder is that often the evidence is incomplete, and what exists of it is apt to be unreliable. At this point the engineer will throw up his hands. That is what definitely he was not trained for. As the late Justice Holmes said, the intelligence of life consists in the art of making decisions on insufficient evidence. That is just the reverse of scientific method.

As a result, our hypothetical engineer will give up in despair and turn the problem over to the mystic or to the sentimentalist, saying that the solution must come from an appeal to instinct. But the doctrine that the only alternative to the scientific method is a recourse to instinct, contains a threat to the existence of our civilization. Political and social problems largely do not lend themselves to treatment by scientific techniques. And if you say that in the absence of scientific treatment you must appeal to emotion, it means that you turn politics over to the fanatics, the intuitionists, and the Hitlers.

It is important to realize that science is the greatest revolutionary force today; and I am talking now of revolutions not in knowledge but in social habits. The great social dislocations are produced by the scientists who also declare themselves incompetent to deal with the problems which they create. For example, look at the automobile, a scientific invention, and consider the changes it has produced especially in our social habits and in our intellectual outlook. Scientific inventions come about with such a speed and so suddenly that society is unable to make the proper readjustments in a healthy fashion. Moreover the dislocations brought about by technological progress come about without any prevision and, so to speak, unconsciously. They are somewhat like "acts of God." In short, we have three things. (a) Science is unable to cope with problems of social reconstruction. (b) Yet science is responsible for immense social dislocations. (c) These last come about in the form of natural catastrophes. These three facts justify our paraphrasing

Plato's dictum to read: "Unless scientists become statesmen, or unless statesmen are scientists, society is doomed to perish." Of course, I am in no way referring to the scientist as a man, who is as good a citizen as anybody else. I am referring now to the mode of scientific thought; and I suggest that the scientist has not yet naturalized himself as a citizen in the kingdom of human society.

The standpoint of the Harvard Report is that scientific method does not exhaust the resources of reason. Reason expresses itself in various ways; when the scientific method fails, we are not driven to the dangerous paths of emotion and of primitivism. There is another mode of thinking which, unlike the scientific mode, is relational, contextual, goes across areas, and sees things together. This is the mode of thinking in history where a human decision is viewed not merely in psychological terms but also as a result of geographic, economic, national, religious and other factors. It is also the mode of thinking appropriate to philosophy whose very nature it is to break down the barriers between specialisms and to view facts in their relationship to the totality. Thus, this mode of thought may best be called philosophical thinking in contrast to scientific thinking.

I come now to my third proposition—namely, that man is a valuing animal. I mean that it is not enough to understand a situation—whether it be simple or complex; we need also to evaluate and appraise it. Certainly in politics and in human relations, judgments of value are called for; and a scientist at least makes a judgment as to the worth of the scientific enterprise. The function of college education should certainly be to train a man to reach judgments of value, and to reach these intelligently; negatively, this last qualification means that judgments of value should be neither arbitrary and fanciful on the one hand, nor dogmatic and authoritarian on the other.

Here we come close to the field of the humanities. In the old days it was assumed that our values would be provided by religious instruction; but today, when the force of religion has waned, we must look elsewhere—primarily to literature, for clues as to our values. We are apt to read literature for the sake of the delight which it affords. Or we may study literature in a historical, or a scholarly fashion, or to consider literature as subject matter for philological studies. While all these approaches are valid, I suggest that there is another approach which must not be neglected in education. The student ought to be led to study literature as a disclosure of values. Literature clothes ideals with warmth and color; it provides us with images and symbols of perfection. In literature we find the various ideals toward which human beings have dimly yet stubbornly groped throughout the ages—the tragic or the heroic ideals, for instance.

To sum up, we have the basis for the three general courses proposed in the Harvard Report in our three propositions. The course in natural sciences is devised for man the specialist; the course in social studies for man as a political animal; the course in the humanities for man, the valuing and choosing animal. I would like now to add a few cursory remarks about the organization of these courses. There are two grave dangers to be avoided; and before I say what these dangers are, I wish to remark that general courses are harder to organize successfully, and this may be one reason why educators have preferred specialized courses. The dangers are that the general course either will sink under the weight of sheer unrelated facts, or that it will evaporate into the clouds of insubstantial generalities. Information without significance is not education. General ideas without an anchorage in facts are not meat for education either. The aim is to combine ideas with facts in due proportion. In a sense, every general course should be philosophical; it should not be a coverage course or an encyclopedia of facts. It should provide an insight into general principles. But we must avoid the danger of verbalism. There must be a selection of important segments of concrete fact in order to provide ballast for the philosophical generalizations. The facts should be selected only insofar as they exemplify the ideas, and the ideas should be made relevant to the facts. With respect to the general ideas: Every subject has its philosophy, its history, its great texts, and its interrelations with other subjects. By its philosophy I mean its ruling presuppositions and its fundamental methods. By its history I mean the heritage of the subject.

My final point is that these courses should not be entrusted to departments. The departments are ingrained with specialism, and they will ruin a general course if they are given complete charge of it. At the same time, we must avoid creating a cleavage between general and special education. The teacher in a general course should have the usual connection with a department and should give courses in it too. The problem is primarily one of personnel. Our teachers get their training in graduate schools which are completely dominated by the standpoint of specialism. Unless we reform the graduate schools we will not have teachers for general education. At the same time we cannot wait for the reform of the graduate schools. We are told that you must not put the cart before the horse. That may be right for the farmer, but in life, the best way to make any progress, is to put the cart before the horse. So I propose that we establish the general courses right away. Once they are confronted with the facts, the graduate schools are bound to follow suit.

Middle States Association of Colleges and Secondary Schools

LIST OF ACCREDITED COLLEGES

January 1, 1946

The original list was adopted in 1921. In the case of colleges subsequently approved the date of approval is given. Engineering schools were first included in 1927, Junior Colleges in 1932, and Teachers Colleges in 1937. The city following the name of the college is the post office, as listed in the U. S. Postal Guide.

Accreditation is based upon the "Principles and Standards for Accrediting Institutions of Higher Education" as adopted by the Middle States Association in November 1941. Copies may be obtained from the Secretary of the Commission.

COLLEGE	LOCATION	HEAD
	DELAWARE	
Delaware State College for Colored Students ....(1945)	Dover	Howard D. Gregg
University of Delaware	Newark	W. O. Sypherd, Acting President
	DISTRICT OF COLUMBIA	
American University ....(1928)	.....	Paul F. Douglass
Catholic University of America..	.....	Rt. Rev. Msgnr. P. J. McCormick
Dunbarton College .....(1940)	.....	Sister Mary Frederick
George Washington University..	.....	Cloyd Heck Marvin
Georgetown University ..(1922)	.....	Rev. Lawrence C. Gorman
Howard University	.....	Mordecai W. Johnson
Trinity College	.....	Sister Catherine Dorothea
Washington Missionary College. (1942)	.....	Benjamin G. Wilkinson
	MARYLAND	
College of Notre Dame of Maryland .....(1925)	Baltimore 10	Sister Mary Frances
Goucher College	Baltimore 18	David Allan Robertson
Hood College .....(1922)	Frederick	Henry Irvin Stahr
Johns Hopkins University	Baltimore 18	Isaiah Bowman
Loyola College .....(1931)	Baltimore 12	Edward B. Bunn, S.J.
Morgan State College ....(1925)	Baltimore	D. O. W. Holmes
Mount St. Mary's College.(1922)	Emmitsburg	Rev. John J. Sheridan
St. Joseph's College .....(1927)	Emmitsburg	V. Rev. Francis J. Dodds, C.M.
University of Maryland	College Park	Harry Clifton Byrd
Washington College ....(1925)	Chestertown	Gilbert W. Mead
Western Maryland College .... (1922)	Westminster	Fred Garrigus Holloway
Woodstock College and College of the Jesuit Novitiate (1944)	Woodstock	Rev. Joseph C. Glose
	NEW JERSEY	
College of St. Elizabeth	Convent	Sister Marie Jose Byrne
Drew University .....(1932)	Madison	Arlo Ayres Brown
Georgian Court College..(1922)	Lakewood	Mother Mary John
New Jersey College for Women..	New Brunswick	Margaret Trumbull Corwin
Newark College of Engineering.. (1934)	Newark	Allan R. Cullimore
Princeton University	Princeton	Harold Willis Dodds
Rutgers University	New Brunswick	Robert Clarkson Clothier
St. Peter's College .....(1935)	Jersey City	Rev. Vincent J. Hart
Seton Hall College .....(1932)	South Orange	Rev. James F. Kelley
Stevens Institute of Technology.. (1927)	Hoboken	Harvey N. Davis

COLLEGE	LOCATION	HEAD
University of Newark....(1941)	Newark	George H. Black
Upsala College .....(1936)	East Orange	Rev. Evald Benjamin Lawson
	NEW YORK	
Adelphi College	Garden City	Paul Dawson Eddy
Alfred University	Alfred	J. Nelson Norwood
Bard College	Annandale-on-Hudson	Charles Harold Gray
Barnard College	New York City 27	Virginia C. Gildersleeve
Brooklyn College .....(1933)	Brooklyn 10	Harry D. Gideonse
Canisius College	Buffalo	V. Rev. Timothy J. Coughlin
Clarkson College of Technology .(1927)	Potsdam	John A. Ross, Jr.
Colgate University	Hamilton	Everett N. Case
College of the City of New York	New York City 31	Harry N. Wright
College of Mount St. Vincent ...	New York City 63	Sister Catharine Marie
College of New Rochelle	New Rochelle	Rt. Rev. Francis W. Walsh
College of St. Rose .....(1928)	Albany	Rev. Edmund F. Gibbons
Columbia University	New York City 27	Nicholas Murray Butler
Cornell University	Ithaca	Edmund E. Day
D'Youville College .....(1928)	Buffalo	Mother Grace of the Sacred Heart
Elmira College	Elmira	William S. A. Pott
Fordham University	New York City	Rev. Robert I. Gannon
Good Counsel College ...(1930)	White Plains	Rev. Mother Aloysia
Hamilton College	Clinton	William Harold Cowley
Hobart College	Geneva	John Milton Potter
Hofstra College .....(1940)	Hempstead, L. I.	John Crawford Adams
Houghton College .....(1935)	Houghton	Stephen W. Paine
Hunter College	New York City 21	George N. Shuster
Keuka College .....(1927)	Keuka Park	Henry E. Allen
Manhattan College	New York City 63	Brother Bonaventure Thomas
Manhattanville College of the Sacred Heart .....(1926)	New York City 27	Mother Eleanor M. O'Byrne
Marymount College .....(1927)	Tarrytown	Mother M. Theresa Dalton
Nazareth College .....(1930)	Rochester	Rev. Mother Rose Miriam
New York University	New York City 3	Harry Woodburn Chase
Niagara University .....(1922)	Niagara Falls	Rev. Joseph M. Noonan
Notre Dame College of Staten Island .....(1942)	Staten Island	Mother St. Egbert
Polytechnic Institute of Brooklyn.(1927)	Brooklyn 2	Harry S. Rogers
Queens College .....(1941)	Flushing	Paul J. Klapper
Rensselaer Polytechnic Institute..(1927)	Troy	William Otis Hotchkiss
Russell Sage College .....(1928)	Troy	Helen M. McKinistry, Acting President
St. Bonaventure's College.(1924)	St. Bonaventure	Thomas Plassmann
St. John's University	Brooklyn 6	V. Rev. Wm. J. Mahoney, C.M.
St. Joseph's College for Women..(1928)	Brooklyn 6	William T. Dillon
St. Lawrence University	Canton	Eugene Garrett Bewkes
Sarah Lawrence College..(1937)	Bronxville	Harold Taylor
Siena College .....(1943)	Loudonville	Rev. Mark Kennedy, O.F.M.
Skidmore College .....(1925)	Saratoga Springs	Henry T. Moore
Syracuse University	Syracuse	William Pearson Tolley
Union College	Schenectady	Carter Davidson
University of Buffalo	Buffalo	Samuel P. Capen
University of Rochester	Rochester	Alan C. Valentine
Vassar College	Poughkeepsie	Henry Noble MacCracken
Wagner Memorial Lutheran College .....(1936)	Staten Island	Walter Consuelo Langsam
Wells College	Aurora	William Ernest Weld
William Smith College	Geneva	John Milton Potter

COLLEGE	LOCATION	HEAD
	PENNSYLVANIA	
Albright College .....(1926)	Reading	Harry V. Masters
Allegheny College	Meadville	John Ritchie Schultz, Acting President
Bryn Mawr College	Bryn Mawr	Katharine McBride
Bucknell University	Lewisburg	Herbert Lincoln Spencer
Carnegie Institute of Technology	Pittsburgh	Robert E. Doherty
Cedar Crest College .....(1944)	Allentown	Dale H. Moore
College of Chestnut Hill ..(1930)	Philadelphia	Sister Maria Kostka
College Misericordia .....(1935)	Dallas	Sister Mary Pierre
Dickinson College	Carlisle	Cornelius William Prettyman, Acting President
Drexel Institute of Technology .. (1927)	Philadelphia 4	James Creese
Duquesne University .....(1925)	Pittsburgh	Raymond V. Kirk
Franklin and Marshall College..	Lancaster	Theodore August Distler
Geneva College .....(1922)	Beaver Falls	McLeod M. Pearce
Gettysburg College	Gettysburg	Henry W. A. Hanson
Grove City College .....(1922)	Grove City	Weir C. Ketler
Haverford College	Haverford	Archibald MacIntosh, Acting President
Immaculata College .....(1928)	Immaculata	Rev. F. J. Furey
Juniata College .....(1922)	Huntingdon	Calvert N. Ellis
Lafayette College	Easton	Ralph Cooper Hutchinson
LaSalle College .....(1930)	Philadelphia 41	Brother Dominic Luke
Lebanon Valley College (1922)	Annville	Clyde Alvin Lynch
Lehigh University	Bethlehem	P. N. Palmer, Acting
Lincoln University .....(1922)	Lincoln University P. O.	Walter Livingston Wright
Marywood College	Scranton	Sister M. Sylvia
Mercyhurst College .....(1931)	Erie	Mother M. Borgia Egan
Moravian College (for Men) ... (1922)	Bethlehem	Rev. Raymond S. Haupert
Mount Mercy College ....(1935)	Pittsburgh	Mother M. Irenaeus Dougherty
Muhlenberg College	Allentown	Levering Tyson
Pennsylvania College for Women (1924)	Pittsburgh	Paul R. Anderson
Pennsylvania State College	State College	Ralph D. Hetzel
Rosemont College .....(1930)	Rosemont	Mother M. Cleophas
St. Francis College .....(1939)	Loretta	Rev. John P. J. Sullivan
St. Joseph's College .....(1922)	Philadelphia	Rev. John J. Long
St. Vincent College	Latrobe	R. Rev. Alfred Koch
Seton Hill College	Greensburg	James A. Wallace Reeves
Susquehanna University ..(1930)	Selinsgrove	G. Morris Smith
Swarthmore College	Swarthmore	John W. Nason
Temple University	Philadelphia	Robert L. Johnson
Thiel College .....(1922)	Greenville	William F. Zimmerman
University of Pennsylvania	Philadelphia 4	George Wm. McClelland
University of Pittsburgh	Pittsburgh	John G. Bowman
University of Scranton ...(1927)	Scranton	Rev. N. Coleman Nevils, S.J.
Ursinus College	Collegeville	Norman E. McClure
Villa Maria College ....(1933)	Erie	Sister M. Doloretta Thorn
Villanova College	Villanova	Rev. Francis X. N. McGuire
Washington & Jefferson College..	Washington	
Westminster College	New Wilmington	Robert F. Galbreath
Wilson College .....(1922)	Chambersburg	Paul Swain Havens
	PUERTO RICO	
Polytechnic Institute of Puerto Rico .....(1944)	San German, P. R.	Jarvis S. Morris

LIST OF ACCREDITED JUNIOR COLLEGES

COLLEGE	LOCATION	HEAD
Alliance Junior College ..(1938)	Cambridge Sps., Pa.	John J. Kolasa
Bennett Junior College ..(1938)	Millbrook, N. Y.	Miss Courtney Carroll
Briarcliff Junior College .(1944)	Briarcliff Manor, N. Y.	Mrs. Ordway Tead
Bucknell University Junior College .....(1937)	Wilkes-Barre, Pa.	Eugene S. Farley, Director
Canal Zone Junior College ..... (1941)	Balboa, C. Z.	Roger C. Hackett
Centenary Collegiate Institute ... (1932)	Hackettstown, N. J.	Hurst Robins Anderson
Concordia Collegiate Institute ... (1941)	Bronxville, N. Y.	Albert E. Meyer
Finch Junior College .....(1940)	New York City	Miss Jessica Cosgrave
Hershey Junior College...(1943)	Hershey, Pa.	A. G. Breidenstine
Immaculata Junior College ..... (1937)	Washington, D. C.	Sister St. Philomene
Junior College of Georgetown Visitation Convent ..(1933)	Washington, D. C.	Sister M. Stephanie Shea
Keystone College .....(1936)	La Plume, Pa.	Blake Tewksbury
Mount Aloysius Junior College.. (1943)	Cressons, Pa.	Sister Marianna
Mount St. Agnes Junior College.. (1937)	Mount Washington, Baltimore, Md.	Sister M. Xavier
Packer Collegiate Institute ..... (1932)	Brooklyn, N. Y.	Paul David Shafer
St. Charles College .....(1939)	Catonsville, Md.	Rev. George A. Gleason, S.S.
Williamsport-Dickinson Junior College .....(1934)	Williamsport, Pa.	Rev. John W. Long

LIST OF ACCREDITED TEACHERS COLLEGES

COLLEGE	LOCATION	HEAD
Miner Teachers College ..(1944)	Washington, D. C.	Eugene A. Clark
New Jersey State Teachers College .....(1937)	Montclair, N. J.	Harry A. Sprague
New Jersey State Teachers College .....(1938)	Trenton, N. J.	Roscoe L. West
New York State College for Teachers .....(1938)	Albany, N. Y.	John M. Sayles, Acting President
State Teachers College ...(1939)	Shippensburg, Pa.	Albert Lindsay Rowland
State Teachers College ...(1941)	Indiana, Pa.	J. M. Uhler, Acting President
State Teachers College ...(1942)	Mansfield, Pa.	James G. Morgan
State Teachers College ...(1943)	Slippery Rock, Pa.	Charles S. Miller
State Teachers College ...(1944)	Kutztown, Pa.	Q. A. W. Rohrbach
Wilson Teachers College..(1943)	Washington, D. C.	Walter E. Hager

LIST OF ACCREDITED SECONDARY SCHOOLS

JANUARY 1, 1946

(The date of first accreditment follows the name of the school. The city following the name of the school is the post office, as listed in the U. S. Postal Guide.)

Schools are accredited according to the procedures of the Cooperative Study of Secondary School Standards. Information concerning evaluation may be secured from the Cooperative Study of Secondary School Standards, 744 Jackson Place, N.W., Washington 6, D. C. or The Commission on Secondary Schools, 3440 Walnut Street, Philadelphia 4, Pa.

SCHOOL	LOCATION	HEAD
	DELAWARE	
Alexis I. duPont High School.... (1939)	Wilmington 67 ..... (Kennett Pike)	Dr. Thomas W. Howie
Archmere Academy .....(1941)	Claymont	Rev. R. W. Paider
Caesar Rodney High School ..... (1934)	Camden	William B. Simpson
Claymont High School ...(1930)	Claymont	H. E. Stahl
Delaware State High School (formerly Delaware State College for Colored Students (High School Dept.))..(1931)	Dover	Mrs. Evelyn W. Easterly
Dover High School .....(1930)	Dover	Byron W. Hartley
Georgetown High School..(1934)	Georgetown	Joseph D. Thomas
Harrington High School ..(1932)	Harrington	Jacob C. Messner
John Bassett Moore High School (1928)	Smyrna	George W. Wright
Laurel High School .....(1936)	Laurel	Charles P. Helm
Lewes High School .....(1932)	Lewes	Richard A. Shields
Middletown High School..(1937)	Middletown	Ellis K. Lecrone
Milford High School .....(1936)	Milford	Robert E. Shilling
Newark High School .....(1928)	Newark	Frederick B. Kutz
Saint Andrew's School ...(1936)	Middletown	Rev. Walden Pell, 2d
Salesianum School for Boys ..... (1944)	Wilmington 43 ..... (801 West St.)	Rev. Thomas A. Lawless
Sanford Preparatory School of the Sunny Hills Schools (1938)	Hockessin	Mrs. Ellen Q. Sawin
Seaford High School .....(1930)	Seaford	Milman E. Prettyman
Tower Hill School .....(1928)	Wilmington 73 ..... (17th St. & Tower Rd.)	James S. Guernsey
Ursuline Academy .....(1928)	Wilmington 19 ..... (1106 Pennsylvania Ave., at Franklin St.)	Mother Mary Immaculata, O.S.U.
William Penn High School ..... (1934)	New Castle	Harold C. Whiteside
Wilmington—Friends School .... (1928)	Wilmington 284 ..... (Alapocas Drive)	Wilmot R. Jones
Wilmington Public High Schools:		
Howard High School ..(1930)	Wilmington 48 ..... (13th & Poplar Sts.)	George A. Johnson
Pierre S. duPont High School (1936)	Wilmington 276 ..... (34th & VanBuren Sts.)	Ralph L. Talbot
Wilmington High School ..... (1928)	Wilmington 16 ..... (Delaware Ave. & Monroe St.)	Clarence A. Fulmer
	DISTRICT OF COLUMBIA	
Academy of the Holy Cross .... (1930)	Washington 8 ..... (2935 Upton St., N. W., Dunbarton Heights)	Sister Maria Regina, C.S.C.

SCHOOL	LOCATION	HEAD
Academy of Notre Dame (1931)	Washington 2 ..... (N. Capitol & K Sts., N. E.)	Sister Marie Claire, S.N.D.
Academy of the Sacred Heart.. (1932)	Washington 10 ..... (1621 Park Rd., N. W.)	Sister Marian, O.P.
Devitt School ...(1928-43; 1946)	Washington 8 ..... (2955 Upton St., N. W.)	Dwight C. Bracken
Georgetown Visitation Convent School .....(1930)	Washington 7 ..... (1500 35th St., N. W., Georgetown Heights)	Sister Margaret Mary Sheerin
Gonzaga High School ...(1933)	Washington 1 ..... (27 Eye St., N. W.)	Rev. William F. Graham
Holton-Arms School .....(1928)	Washington 8 ..... (2125 S St., N. W.)	Miss Frederika Hodder
Holy Trinity High School (1933)	Washington 7 ..... (36th & O Sts., N. W., Georgetown)	Sister Mary Irene, R.S.M.
Immaculata Seminary ....(1928)	Washington 16 ..... (4344 Wisconsin Ave., N. W.)	Sister Margaret Thomas, S.D.P.
Maret School ...(1930-33; 1942)	Washington 8..... (2118 Kalorama Rd., N. W.)	The Misses Maret Mrs. Alice Parker Carson
Mount Vernon Seminary .(1928)	Washington 16 ..... (4340 Fordham Rd., N. W.)	Miss Helen C. Hastings
National Cathedral School (Girls) .....(1932)	Washington 16 ..... (Wisconsin Ave. & Woodley Rd., N. W., Mount Saint Alban)	Miss Mabel B. Turner
Saint Albans, The National Cathedral School for Boys.. (1928)	Washington 16 ..... (Massachusetts & Wisconsin Aves., N. W., Mount Saint Alban)	Rev. Albert H. Lucas
Saint Anthony's High School ... (1938)	Washington 17 ..... (12th & Lawrence Sts., N. E., Brookland)	Sister M. Juliana, O.S.B.
Saint Cecilia's Academy..(1934)	Washington 3 ..... (601 E. Capitol St.)	Sister M. Rose Eileen, C.S.C.
Saint John's College High School .....(1929)	Washington 5 ..... (1225 Vermont Ave., N. W.)	Brother E. Leonard
Saint Paul's Academy ...(1934)	Washington 9 ..... (1421 Vee St., N. W.)	Sister Mary Clotile, C.S.C.
Saint Rose's Technical School ... (1940)	Washington 8 ..... (2200 California St., N. W.)	Sister Serena
Sidwell Friends School, The ... (1928)	Washington 16 ..... (3901 Wisconsin Ave., N. W.)	Howard Bartram
Washington Public High Schools:		
Anacostia High School..(1939)	Washington 20 ..... (16th & R Sts., S. E., Anacostia)	Mrs. O. H. Corkery
Armstrong High School (1929)	Washington 1 ..... (O St. bet. 1st & 3rd, N. W.)	Francis A. Gregory
Calvin Coolidge High School.. (1943)	Washington 11 ..... (5th & Tuckerman Sts., N. W.)	John F. Brougher
Francis L. Cardozo High School .....(1932)	Washington 1 ..... (9th St. & Rhode Island Ave., N. W.)	Robert N. Mattingly

SCHOOL	LOCATION	HEAD
Paul Lawrence Dunbar High School .....(1929)	Washington 1 ..... (1st & N Sts., N. W.)	Harold A. Haynes
Theodore Roosevelt High School .....(1929)	Washington 11 ..... (13th & Upshur Sts., N. W.)	Miss May P. Bradshaw
Washington Central High School .....(1929)	Washington 9 ..... (13th St. at Clifton St., N. W.)	Lawrence G. Hoover
Washington Eastern High School .....(1929)	Washington 3 ..... (17th & E. Capitol Sts.)	Charles S. Hart
Washington Western High School .....(1929)	Washington 7 ..... (35th & R Sts., N. W.)	Nathaniel A. Danowsky
William McKinley High School .....(1929)	Washington 2 ..... (2d & T Sts., N. E.)	Frank C. Daniel
Woodrow Wilson High School (1937)	Washington 16 ..... (Nebraska Ave. & Chesapeake St.)	Norman J. Nelson
Woodward School for Boys..... (1928)	Washington 6 ..... (1736 G St., N. W.)	Leroy J. Maas
	MARYLAND	
Academy of the Holy Names.... (1943)	Silver Spring ..... (711 Pershing Drive)	Sister Rose of Mary
Annapolis High School...(1940)	Annapolis ..... (Chase Ave. at Constitution Ave.)	Dr. Howard A. Kinhart
Baltimore Friends School..(1928)	Baltimore 10 ..... (5114 N. Charles St., Homeland)	Bliss Forbush
Baltimore Public High Schools:		
Baltimore City College ..... (1928-34; 1942)	Baltimore 18 ..... (33rd St. & the Alameda)	Dr. Philip H. Edwards
Baltimore Eastern High School (1928)	Baltimore 18 ..... (33rd St. & Lock Raven Rd.)	Miss Laura J. Cairnes
Baltimore Polytechnic Institute (1928)	Baltimore 2 ..... (North Ave. & Calvert St.)	Wilmer A. Dehuff
Baltimore Southern Junior-Senior High School.(1935)	Baltimore 30 ..... (Warren Ave. & William St.)	John H. Schwatka
Baltimore Western High School (1928-33; 1935)	Baltimore 17 ..... (Pulaski St. & Gwynns Falls Parkway)	Miss Mildred M. Coughlin
Forest Park High School ..... (1928-32; 1936)	Baltimore 7 ..... (Chatham Rd. & Eldorado Ave.)	Wendell E. Dunn
Frederick Douglass Senior-Junior High School.(1928)	Baltimore 17 ..... (Calhoun & Baker Sts.)	Harry T. Pratt
Patterson Park Junior-Senior High School .....(1940)	Baltimore 24 ..... (Ellwood Ave. & Pratt St.)	Dr. Chester H. Katenkamp
Bel Air High School .....(1938)	Bel Air ..... (E. Gordon St.)	Charles E. Harkins
Bethesda-Chevy Chase Senior High School .....(1931)	Bethesda 14	Thomas W. Pyle
Brunswick Junior-Senior High School .....(1928)	Brunswick	William B. Jones

SCHOOL	LOCATION	HEAD
Calvert Hall High School. (1928)	Baltimore 1 ..... (320 Cathedral St. at Mulberry)	Brother E. James
Catonsville High School.. (1929)	Baltimore 28 ..... (Bloomsbury Ave., Catonsville)	Reade Corr
Cumberland Public High Schools:		
Allegany High School.. (1928)	Cumberland ..... (616 Sedgwick St.)	Ralph R. Webster
Fort Hill High School.. (1931)	Cumberland	Victor D. Heisey
Frederick High School.... (1928)	Frederick	Harry O. Smith
Gaithersburg Junior-Senior High School ..... (1932)	Gaithersburg	Emerson P. Slacum
Georgetown Preparatory School (1928)	Garrett Park ..... (Rockville Pike)	Rev. William F. Maloney
Gilman Country School for Boys (1936)	Baltimore 10 ..... (5407 Roland Ave., Roland Park)	Henry H. Callard
Glen Burnie High School.. (1936)	Glen Burnie	Miss Louise Tod Motley
Greenwood School ..... (1937)	Baltimore 4 ..... (Boyce Ave., Ruxton)	Miss Mary A. Elcock
Hagerstown Senior High School (1928)	Hagerstown	John D. Zentmyer
Hannah Moore Academy.. (1931)	Reisterstown	Miss Janet Ward
Landon School for Boys.. (1936)	Washington, Bethesda 14 P. O. (Wilson Lane, Edgemoor, Md.)	Paul L. Banfield
Loyola High School of Baltimore (1933)	Baltimore 4 ..... (Boyce Ave. & Chestnut Rd., Towson)	Rev. John A. Convery
McDonogh School ..... (1928)	McDonogh	Major Louis E. Lamborn
Montgomery Blair Senior High School ..... (1932)	Silver Spring, Box 430 .... (Wayne Ave. & Dale Drive)	Edgar Meritt Douglass
Mount Saint Agnes School. (1928)	Baltimore 9 ..... (Mount Washington)	Sister Mary Josepha Higgins, R.S.M.
Mount Saint Joseph's College (High School) ..... (1933)	Baltimore 29 ..... (Frederick & Yale Aves., Carroll Station)	Brother Bartholomew
Notre Dame of Maryland—High School ..... (1928)	Baltimore 10 ..... (N. Charles St., Roland Park)	Sister Mary Virginia, S.S.N.D.
Oldfields School ..... (1942)	Glencoe	Duncan McCulloch, Jr.
Park School of Baltimore, The.. (1928)	Baltimore 15 ..... (3025 Liberty Heights Ave.)	Hans Froelicher, Jr.
Richard Montgomery Junior-Senior High School .. (1932)	Rockville	Daryl W. Shaw
Roland Park Country School ... (1928)	Baltimore 10 ..... (817 W. University Parkway, Roland Park)	Miss Elizabeth M. Castle
Saint James School ..... (1930)	Lydia P. O.	Dr. Vernon Brown Kellett
Saint Joseph's High School. (1930)	Emmitsburg	Sister Genevieve Miller
Saint Mary's Female Seminary.. (1931)	Saint Mary's City	Miss M. Adele France
Seton High School ..... (1931)	Baltimore 18 ..... (2800 N. Charles St.)	Sister Genevieve McDermott, S.C., Ph.D.
Sherwood High School ... (1932)	Sandy Spring	Sidney T. Lawler
Takoma Academy ..... (1935)	Washington 12, D. C. ..... (Takoma Park, Md.)	Wilton H. Wood

SCHOOL	LOCATION	HEAD
Towson High School .....(1942)	Baltimore 4 ..... (Towson)	W. Horace Wheeler
Trinity Preparatory School (Maryland Academy of Notre Dame) .....(1941)	Ilchester	Sister Mary Patrick, S.N.D.
West Nottingham Academy ..... (1932)	Colora	J. Paul Slaybaugh
Wicomico High School ...(1932)	Salisbury	Clarence H. Cordrey
	NEW JERSEY	
Academy of Saint Elizabeth ... (1928-44; 1946)	Convent Station	Sister Marie Josephine, S.C.
A. J. Demarest High School .... (1928)	Hoboken ..... (4th & Garden Sts.)	Arthur E. Stover
Abraham Clark High School .... (1932)	Roselle	Albert S. Peeling
Academy of Holy Angels.(1933)	Fort Lee	Sister M. Frances Therese, Ph.D., S.S.N.D.
Admiral Farragut Academy .... (1937)	Pine Beach	Cyrus S. Radford
Asbury Park High School.(1928)	Asbury Park	Charles S. Huff
Atlantic City High School.(1939)	Atlantic City ..... (Albany & Atlantic Aves.)	Charles R. Hollenbach
Atlantic Highlands High School. (1928)	Atlantic Highlands	Herbert S. Meinert
Audubon High School ....(1931)	Audubon	Miss Grace N. Kramer
Bayonne Senior High School .... (1928)	Bayonne	John J. Mullen
Beard's School for Girls, Miss... (1928)	Orange ..... (560 Berkeley Ave.)	Miss Lucie C. Beard Miss Sara C. Turner
Belleville High School ...(1934)	Belleville 9	Burt Johnson
Bergenfield High School ..(1945)	Bergenfield	Miss Marion Preston
Bernards High School ....(1928)	Bernardsville	W. Ross Andre
Blair Academy .....(1928)	Blairstown	Dr. Charles H. Breed
Bloomfield Senior High School.. (1928)	Bloomfield	James K. Walklet
Bogota High School .....(1928)	Bogota	Robert Pollison
Boonton High School ....(1928)	Boonton	Leslie A. E. Booth
Bordentown Military Institute .. (1928)	Bordentown	Harold Morrison Smith
Bound Brook High School.(1928)	Bound Brook	G. Harvey Nicholls
Bridgeton High School ...(1931)	Bridgeton	Harry C. Smalley
Butler High School .....(1945)	Butler	Daniel Caruso
Camden Catholic High School.. (1934)	Camden ..... (7th & Federal Sts.)	Sister Mary
Camden High School ....(1928)	Camden ..... (Park Blvd. & Baird Ave.)	Carleton R. Hopkins
Cape May High School ..... (1928-32; 1938)	Cape May	Paul S. Ensminger
Carteret High School ....(1929)	Carteret	Miss Anna Drew Scott
Carteret School for Boys..(1928)	Orange ..... (700 Prospect Ave., West Orange)	Roy S. Claycomb
Chatham High School ...(1939)	Chatham	Dr. Everett V. Jeter
Cliffside Park Senior High School .....(1930)	Cliffside Park	Dr. Robert L. Burns
Clifton High School .....(1928)	Clifton	Harold J. Adams
Closter Junior-Senior High School .....(1932)	Closter	C. F. Sailer
College High School of the State Teachers College at Montclair .....(1935)	Upper Montclair	Arthur M. Seybold

SCHOOL	LOCATION	HEAD
Collingswood Senior High School ..... (1928)	Collingswood	Percy S. Eichelberger
Columbia Senior High School... (1928)	Maplewood ..... (17 Parker Ave.)	Frederic J. Crehan
Cranford High School ... (1928)	Cranford	Ray A. Clement
Dover High School ..... (1928)	Dover	William S. Black
Dumont High School .... (1939)	Dumont	Alfred W. Heath
Dunellen High School .... (1938)	Dunellen	Wilbur F. Bolen
Dwight Morrow High School... (1928)	Englewood	George W. Paulsen
East Orange Public High Schools:		
Clifford J. Scott High School.. (1940)	East Orange ..... (129 Renshaw Ave.)	Dr. Lemuel R. Johnston
East Orange High School..... (1928)	East Orange ..... (34 N. Walnut St.)	Dr. Galen Jones
East Rutherford High School.... (1938)	East Rutherford	George L. Dierwechter
Elizabeth Public High Schools:		
Battin High School .... (1928)	Elizabeth 2 ..... (South & S. Broad Sts.)	Miss Helen G. Paulmenn
Thomas Jefferson High School. (1931)	Elizabeth 4 ..... (East Scott Place)	Porter W. Averill
Englewood School for Boys..... (1934-37; 1940)	Englewood ..... (363 E. Palisade Ave.)	Marshall L. Umpleby
Fairlawn Junior-Senior High School ..... (1946)	Fairlawn	Milford Franks
(Miss) Fine's School ..... (1940-41; 1946)	Princeton	Miss Shirley Davis
Flemington High School.. (1928)	Flemington	Robert M. Wayman
Florence Township High School. (1945)	Florence	Miss Marcella L. Duffey
Fort Lee Junior-Senior High School ..... (1931)	Fort Lee	Lewis F. Cole
Franklin High School .... (1944)	Franklin	Ebert E. Hollobaugh
Freehold High School .... (1928)	Freehold	Miss Lillian F. Lauler
Glassboro High School ... (1931)	Glassboro	Leon C. Lutz
Glen Ridge Senior High School (1928)	Glen Ridge	Alfred C. Ramsay
Gloucester City Junior-Senior High School. (1928-33; 1936)	Gloucester City	Wendell Sooy
Grover Cleveland High School.. (1928)	Caldwell	Richard M. Elsea
Hackensack Senior High School.. (1928)	Hackensack	Dr. Boutelle E. Lowe
Hackettstown High School. (1930)	Hackettstown	William H. Weaver
Haddon Heights High School... (1928)	Haddon Heights	Dr. Leonard B. Irwin
Haddonfield Memorial High School ..... (1930)	Haddonfield	Robert L. Foose
Hamilton High School .... (1943)	Trenton 10 ..... (Park & S. Clinton Aves.)	Harvey A. Hesser
Hammonton High School.. (1928)	Hammonton	Paul S. Gillespie
Harrison High School.... (1928)	Harrison	William F. Grant
Hartridge School ..... (1933)	Plainfield	Miss Frances Hurrey
Hasbrouck Heights High School. (1929)	Hasbrouck Heights	Dr. Clarence C. Hitchcock
Hawthorne High School.. (1936)	Hawthorne	George J. Geier
Highland Park High School..... (1940)	Highland Park	Alger Y. Maynard
Hightstown High School.. (1928)	Hightstown	J. Harvey Shue
Hillside Senior High School .... (1930)	Elizabeth 5 ..... (1085 Liberty Ave., Hillside)	Ruhl Custer

SCHOOL	LOCATION	HEAD
Irvington High School....(1928)	Newark 11 ..... (1253 W. Clinton Ave., Irvington)	Clarence E. Chamberlain
Jamesburg High School...(1942)	Jamesburg	Fred W. Evans
Jersey City Public High Schools:		
Henry Snyder High School ... (1940)	Jersey City 5 ..... (Bergen & Myrtle Aves.)	Emmett J. Campbell
James J. Ferris High School.. (1940)	Jersey City 2 ..... (Coles & 7th Sts.)	John O'Regan
Lincoln High School ...(1928)	Jersey City 4 ..... (Crescent Ave.)	Thomas H. Quigley
William L. Dickinson High School .....(1928)	Jersey City 6 ..... (Newark & Palisades Ave.)	Dr. Frank J. McMackin
Jonathan Dayton Regional High School .....(1942)	Springfield	Warren W. Halsey
Kearny High School .....(1928)	Arlington ..... (Devon St., Kearny)	George G. Mankey
Kent Place School .....(1928-36; 1938)	Summit	Miss Harriet L. Hunt
Lakewood Junior-Senior High School .....(1928)	Lakewood	Walter L. Haley
Lawrenceville School ....(1928)	Lawrenceville	Allan Vanderhoef Heely
Leonia High School .....(1928)	Leonia	Carl W. Suter
Linden High School .....(1928)	Linden	Miss Lida M. Ebbert
Lodi High School .....(1939)	Lodi	Anthony H. Della Penta
Long Branch Senior High School .....(1928)	Long Branch	Harmon M. Bradford
Lyndhurst High School....(1930)	Lyndhurst	Edmund Burke
Madison High School ....(1928)	Madison	Ward Shoemaker
Manasquan High School .(1935)	Manasquan	Dr. Marion C. Woolson
Merchantville High School ..... (1932)	Merchantville	J. Edgar Bishop
Metuchen High School....(1928)	Metuchen	Elmo E. Spoerl
Middle Township High School.. (1928)	Cape May Court House	Harold E. Andrew
Middletown Township High School .....(1936)	Leonardo	William K. Megill
Millburn High School....(1928)	Millburn	Robert E. Faddis
Millville Memorial High School (1928-35; 1943)	Millville ..... (5th & Broad Sts.)	J. Harold Conner
Montclair Academy .....(1928)	Montclair	Walter D. Head
Montclair High School ...(1928)	Montclair	Harold A. Ferguson
Moorestown Friends' School ... (1928)	Moorestown	Chester L. Reagan
Moorestown High School..(1928)	Moorestown	Dr. Mary E. Roberts
Morristown School .....(1933)	Morristown ..... (Whippany Rd., Box 71)	Valleau Wilkie
Mount Holly High School ..... (1928-35; 1938)	Mount Holly	Warren N. Butler
Mount Saint Dominic Academy.. (1934)	Caldwell	Sister M. Germaine, O.P.
Mount Saint Mary's Academy.. (1937)	Plainfield ..... (North Plainfield Sta.)	Sister Mary Leonard
Mountain Lakes Junior-Senior High School .....(1940)	Mountain Lakes	Robert J. Smith
Neptune Township High School. (1928)	Ocean Grove	Harry A. Titcomb
New Brunswick Senior High School .....(1928)	New Brunswick	Robert C. Carlson
Newark Academy .....(1928)	Newark 7 ..... (215 First St.)	Thomas A. Shields

SCHOOL	LOCATION	HEAD
Newark Public High Schools:		
Barringer High School..(1928)	Newark 4 ..... (49 Parker St.)	Roger B. Saylor
Newark Central Commercial and Technical High School (1928)	Newark 4 ..... (345 High St.)	William Wiener
Newark East Side Commercial and Technical High School (1928)	Newark 5 ..... (238 Van Buren St.)	William V. Wilmot
Newark South Side High School (1933)	Newark 8 ..... (80 Johnson Ave.)	Arthur W. Belcher
Newark Weequahic High School .....(1935)	Newark 8 ..... (279 Chancellor Ave.)	Max J. Herzberg
Newark West Side High School .....(1929)	Newark 3 ..... (425 S. Orange Ave.)	Reyburn A. Higgins
Newton High School .....(1946)	Newton	Ralph M. Hutchison
North Arlington High School ... (1944)	North Arlington	Frank J. Hurley
North Plainfield High School... (1928)	Plainfield ..... (Greenbrook Rd., North Plainfield)	Dr. Thurman H. Bare
Nutley High School .....(1928)	Nutley	Dr. Howard G. Spalding
Ocean City High School..(1928)	Ocean City	George W. Meyer
Orange High School.....(1928)	Orange	Frank L. Yost
Palmyra High School ....(1930)	Palmyra	Miss C. Elizabeth McDonell
Park Ridge High School..(1930)	Park Ridge	Mrs. May Emmons Hallett
Passaic Senior High School..... (1928)	Passaic	Ollo A. Kennedy
Paterson Public High Schools:		
Paterson Central High School.. (1928)	Paterson 1 ..... (Hamilton St.)	Joseph F. Manley
Paterson Eastside High School. (1928)	Paterson 3 ..... (Market St.)	Ellsworth Tompkins
Paulsboro High School ..... (1928-33; 1936)	Paulsboro	Phillip Q. Stumpf
Peddie School, The .....(1928)	Hightstown	Dr. Wilbour Eddy Saunders
Pemberton High School...(1935)	Pemberton	Eric Groezinger
Pennington School for Boys .... (1930-35; 1937)	Pennington	Dr. Francis H. Green
Perth Amboy High School. (1928)	Perth Amboy	James F. Chalmers
Pingry School, The .....(1928)	Elizabeth 3 ..... (87 Parker Rd.)	E. Laurence Springer
Pitman High School .....(1928)	Pitman	Henry B. Cooper
Plainfield High School ...(1928)	Plainfield	Waldro J. Kindig
Point Pleasant Beach High School (1939)	Point Pleasant ..... (Trenton & Bay Aves.)	Joseph E. Clayton
Pompton Lakes High School .... (1943)	Pompton Lakes ..... (Lakeside Ave.)	Harry H. Pratt
Princeton Junior-Senior High School .....(1932)	Princeton	Dr. Ted B. Bernard
Prospect Hill School (Girls) .... (1928)	Newark 4 ..... (346 Mount Prospect Ave.)	Dr. Albert A. Hamblen
Rahway High School .....(1933)	Rahway	Ralph N. Kocher
Ramsey High School ....(1939)	Ramsey	Guy W. Moore
Red Bank Catholic High School.. (1934)	Red Bank	Sister Mary Eleanor
Red Bank Senior High School... (1928)	Red Bank	Harry C. Sieber
Ridgefield Park High School.... (1930)	Ridgefield Park	Frederic K. Shield
Ridgewood High School..(1928)	Ridgewood	Ellis D. Brown

SCHOOL	LOCATION	HEAD
Roselle Park High School. (1928)	Elizabeth ..... (Grant Ave., West, Roselle Park)	G. Hobart Brown
Roxbury High School .... (1938)	Succasunna	V. F. Group
Rumson High School .... (1940)	Rumson	Frank L. Weinheimer
Rutgers Preparatory School, The (1928)	New Brunswick	Stanley Shepard, Jr.
Rutherford Senior High School.. (1928-35; 1940)	Rutherford	Wilmot H. Moore
Saint Benedict's Preparatory School ..... (1935)	Newark 2 ..... (520 High St.)	Rev. Charles Carroll, O.S.B.
Saint John Baptist School (Girls) (1935)	Mendham	Sister Eleanor Lucy, C.S.J.B.
Saint Mary's Hall ..... (1936)	Burlington	Miss Florence Lukens Newbold
Saint Peter's College High School ..... (1930)	Jersey City 2 ..... (144 Grand St.)	Rev. John J. Nash
Sayreville High School ... (1946)	Sayreville	John E. Lyons
Scotch Plains High School. (1932)	Scotch Plains	Robert Adams, Jr.
Seton Hall Preparatory School .. (1931)	South Orange ..... (400 South Orange Ave.)	Rev. William N. Bradley
Somerville High School .. (1928)	Somerville	W. F. Lawrence
Stevens Hoboken Academy ..... (1935; 1937)	Hoboken ..... (266 Fifth St.)	Alfred J. Wiesmann
Summit High School ..... (1934)	Summit	Albert J. Bartholomew
Swedesboro High School.. (1928)	Swedesboro	Walter H. Hill
Teaneck High School .... (1935)	Teaneck	Charles L. Steel, Jr.
Tenafly High School ..... (1928)	Tenafly	Burt Johnson
Trenton Cathedral High School.. (1940)	Trenton 8 ..... (Bank St. & Chancery Lane)	Sister Mary Barbara
Trenton Central Senior High School ..... (1928)	Trenton 9 ..... (Hamilton Ave. & Chambers St.)	Dr. Paul R. Spencer
Union City Public High Schools:		
Emerson High School .. (1929)	Union City ..... (318 18th St.)	Joseph J. Maney
Union Hill High School. (1928)	Union City ..... (3800 Hudson Ave. at 38th St.)	Harry S. Stahler
Vail-Deane School ..... (1928)	Elizabeth 3 ..... (618 Salem Ave.)	Miss Margaret S. Cummings
Vineland High School .... (1936)	Vineland	Miss Mary E. Rossi
Washington High School.. (1934)	Washington	Donald H. Fritts
Weehawken High School.. (1928)	Union City ..... (Liberty Place, Weehawken)	Urban W. Chase
West Orange High School. (1928)	West Orange	Raymond E. Hearn
Westfield Senior High School ... (1928)	Westfield	Dr. Frank N. Neubauer
Westwood High School .. (1939)	Westwood	Leland S. March
Wildwood High School .. (1931)	Wildwood	William V. Young
William McFarland High School (1929-33; 1935)	Bordentown	Miss Anna T. Burr
Woodbridge High School. (1928)	Woodbridge	Dr. John P. Lozo
Woodbury High School .. (1928)	Woodbury	Lloyd L. Lammert
Wood-Ridge High School. (1943)	Wood-Ridge ..... (Hackensack St.)	Maurice A. Coppens
Woodstown High School.. (1928)	Woodstown	Herman Ragg, Jr.
	NEW YORK	
A. B. Davis High School. (1932)	Mount Vernon	James A. Cullen
Academy of Mount Saint Vincent (1944)	New York City ..... (Tuxedo Park, Bronx)	Sister Mary, Ph.D.

SCHOOL	LOCATION	HEAD
Adelphi Academy .....(1928)	Brooklyn 5, New York City (282 Lafayette Ave.)	Harold C. Amos
Albany Academy (Boys), The .. (1928)	Albany 2 ..... (Academy Rd.)	Harry E. P. Meislahn
Albany Academy for Girls (1928)	Albany 6 ..... (155 Washington Ave.)	Miss Rhoda Harris
Albany High School .....(1939)	Albany 3 ..... (141 Western Ave.)	Dr. Harry E. Pratt
Allendale School .....(1943)	Rochester 10 ..... (Allen's Creek Rd.)	Hollis Scofield
Aquinas Institute of Rochester .. (1928)	Rochester 13 ..... (1127 Dewey Ave.)	Rev. Wm. J. Duggan
Barnard School for Boys. (1928)	Bronx, New York City .... (4411 W. 244th St. at Cayuga Ave., Fieldston)	Carrington Raymond
Barnard School for Girls. (1930)	Bronx 33, New York City .. (554 Ft. Washington Ave.)	Mrs. Margaret D. Gillette
Bay Shore High School ...(1928)	Bay Shore	Warde G. McLaughlin
Berkeley Institute .....(1928)	Brooklyn 17, New York City (181 Lincoln Place)	Miss Ina C. Atwood
Binghamton Central High School (1928)	Binghamton	Edward T. Springmann
Birch Wathen School ....(1936)	Manhattan 25, New York City (149 West 93rd St.)	Harrison W. Moore
Bronxville High School ..(1945)	Bronxville	Miss Edith M. Penney
Brooklyn Friends School..(1928)	Brooklyn 2, New York City (112 Schermerhorn St.)	Warren B. Cochran
Brooklyn Preparatory School ... (1928)	Brooklyn 25, New York City (1150 Carroll St.)	Rev. John J. Hooper
Buffalo Seminary, The....(1928)	Buffalo 9 ..... (203 Bidwell Parkway)	Miss L. Gertrude Angell
Calhoun School, The ....(1928)	Manhattan 25, New York City (309 West 92d St.)	Miss Mary E. Calhoun Miss Ella C. Levis
Canisius High School of Buffalo (1928)	Buffalo 3 ..... (651 Washington St.)	Dr. Lorenzo K. Reed
Cathedral School of Saint Mary (1928)	Garden City	Mrs. Marion B. Reid Marsh
Chaminade High School ..(1946)	Mincola	Louis J. Faerber, S.M.
Chapin School, The .....(1928)	Manhattan 28, New York City (100 East End Ave.)	Miss Ethel G. Stringfellow
Collegiate School for Boys. (1928)	Manhattan 24, New York City (241 West 77th St.)	Wilson Parkhill
Columbia Grammar School ..... (1928)	Manhattan 25, New York City (5 West 93rd St.)	Frederic A. Alden
Columbia School of Rochester, The (Girls) .....(1940)	Rochester 7 ..... (22 S. Goodman St.)	Mrs. Della E. Simpson
Corning Free Academy ..(1928)	Corning	Wilbur T. Miller
Cortland Junior-Senior High School .....(1929)	Cortland	John H. Burke
De Veaux School .....(1928)	Niagara Falls	Rev. Wm. Stuber Hudson
Dobbs Ferry High School. (1935)	Dobbs Ferry	Wm. Z. Lindsey
Drew Seminary for Young Women .....(1928)	Carmel	Rev. Philip S. Watters
Dwight School .....(1928)	Manhattan 16, New York City (72 Park Ave.)	Ernest Greenwood
Eastchester High School..(1941)	Tuckahoe ..... (White Plains Post Rd. at Stewart Place)	Douglas S. MacDonald
Emma Willard School....(1928)	Troy	Miss Anne Wellington Miss Clemewell Lay
Female Academy of the Sacred Heart .....(1928)	Albany 2 ..... (Kenwood)	Mother Margaret O'Rourke, R.S.C.J.

SCHOOL	LOCATION	HEAD
Fieldston School of the Ethical Culture Schools .....(1928)	Bronx 63, New York City.. (Fieldston Rd. & Spuyten Duyvil Parkway)	Luther H. Tate
Fordham Preparatory School .... (1928)	Bronx 58, New York City ..	Rev. Dr. Joseph B. O'Connell
Franklin School .....(1928)	Manhattan 24, New York City (18 West 89th St.)	{David P. Berenberg {Clifford W. Hall
Fredonia High School ....(1928)	Fredonia	Claude R. Dye
Garden Country Day School ... (1935)	Queens, New York City ... (33-16 79th St., Jackson Heights, Flushing)	Otis Preston Flower
Geneva High School ....(1928)	Geneva	Louis M. Collins
Goodyear-Burlingame School ... (1929)	Syracuse 3 ..... (625 James St.)	Miss Marion S. Edwards
Great Neck High School..(1928)	Great Neck ..... (Polo Rd.)	Ruel E. Tucker
Hackley School .....(1933)	Tarrytown	Dr. Mitchell Gratwick
Harley School .....(1932)	Rochester 10 ..... (1981 Clover St., R.F.D. No. 1)	Lawrence W. Utter
Hastings-on-Hudson High School (1928)	Hastings-on-Hudson	Miss Elizabeth Mary Smith
Hempstead High School ..(1935)	Hempstead ..... (70 Greenwich St.)	Dr. Raymond Maure
Holy Angels Academy ..(1946)	Buffalo 14 ..... (24 Shoshone Drive)	Sister Regina Marie, G.N.S.H.
Horace Mann School for Boys, The .....(1928)	Manhattan 63, New York City (231 West 246th St.)	Dr. Charles C. Tillinghast
Horace Mann-Lincoln School (formerly Lincoln School) .. (1934)	New York 27 ..... (425 West 123rd St.)	Dr. Donald B. Cottrell
Hornell Junior-Senior High School .....(1928)	Hornell	Edward W. Cooke
Hudson High School ....(1928)	Hudson (Box 17)	John T. Kaemmerlen
Huntington High School ..(1928)	Huntington	Robert L. Simpson
Ithaca High School ....(1928)	Ithaca	Frank R. Bliss
Johnstown High School ..(1929)	Johnstown	William A. Wright
Kew-Forest School .....(1928)	Queens, New York City ... (119-17 Union Turnpike at Austin St., Forest Hills)	Dr. James L. Dixon
Knox School, The .....(1930)	Cooperstown	Mrs. Louise Phillips Houghton
La Salle Military Academy ..... (1936)	Oakdale	Brother Brendan
Lawrence High School ..(1933)	Lawrence	Cecil H. Mahood
Locust Valley—Friends Academy (1928)	Locust Valley	Harold A. Nomer
Long Beach High School .(1934)	Long Beach	Richard Maher
Loyola School .....(1928)	Manhattan 28, New York City (980 Park Ave. at 83rd St.)	Dr. Walter A. Reilly
McBurney School .....(1929)	Manhattan 23, New York City (5 West 63rd St.)	Thomas Hemenway
Mamaroneck High School (1934)	Mamaroneck	Joseph C. McLain
Manhasset High School ..(1928)	Manhasset ..... (Memorial Place)	Kendall B. Howard
Manhattan—Friends Seminary .. (1928)	Manhattan 3, New York City (15 Rutherford Place)	Alexander H. Prinz
Manlius School .....(1928)	Manlius	Howard I. Dillingham
Marcellus Central High School .. (1934)	Marcellus	Chester S. Driver
Marymount Secondary School .. (1928)	Tarrytown	Mother Gertrude Cain, S.S.H.M.

SCHOOL	LOCATION	HEAD
Masters School, The ....(1928)	Dobbs Ferry ..... (120 Grand Ave.)	Mrs. Elliott Speer
Middletown High School..(1938)	Middletown	Frederic P. Singer
Millbrook School for Boys.(1942)	Millbrook	Edward Pulling
Monticello High School ..(1936)	Monticello	Kenneth L. Rutherford
Mount Saint Joseph Academy ... (1934)	Buffalo 8 ..... (2064 Main St.)	Sister M. Irma, S.S.J.
Mount Saint Mary Academy ... (1932)	Newburgh	Sister Mary Vincent, O.P.
Nazareth Academy .....(1946)	Rochester 13 ..... (1001 Lake Ave.)	Sister M. Hubertine, S.S.J.
New York City Public High Schools:		
Bronx Borough:		
DeWitt Clinton High School (1928)	Bronx 63, New York City.. (100 West Mosholu Parkway, South)	A. Mortimer Clark
Evander Childs High School (1928)	Bronx 67, New York City.. (800 East Gunhill Rd.)	Dr. Hymen Alpern
James Monroe High School (1928)	Bronx 59, New York City.. (1300 Boynton Ave. at 172d St.)	Dr. Henry E. Hein
Theodore Roosevelt High School .....(1928)	Bronx 58, New York City.. (500 East Fordham Rd.)	William W. Rogers
Walton High School..(1928)	Bronx 63, New York City .. (Reservoir Ave. & W. 195th St.)	Dr. Marion C. Heffernan
Brooklyn Borough:		
Brooklyn Boys High School.. (1928)	Brooklyn 16, New York City (832 Marcy Ave.)	Alfred A. Tausk
Brooklyn Girls Commercial High School ....(1928)	Brooklyn 25, New York City (883 Classon Ave. at Union St.)	Miss Edna Ficks
Brooklyn Manual Training High School ....(1928)	Brooklyn 15, New York City (237 7th Ave.)	William M. Barlow
Brooklyn Technical High School .....(1928)	Brooklyn 1, New York City (29 Fort Greene Place)	William Pabst
Bushwick High School (1928)	Brooklyn 27, New York City (400 Irving Ave.)	Dr. Milo F. McDonald
Erasmus Hall High School .. (1928)	Brooklyn 26, New York City (911 Flatbush Ave.)	Robert Lafferrander
James Madison High School (1928-30; 1936)	Brooklyn 29, New York City (3787 Bedford Ave.)	Max Newfield
Thomas Jefferson High School .....(1928)	Brooklyn 7, New York City (399 Pennsylvania Ave. at Dumont Ave.)	Ludwig Kaphan
Manhattan Borough:		
George Washington High School .....(1928)	Manhattan 33, New York City (192d St. & Audubon Ave.)	Arthur A. Boylan
Haaren High School..(1929)	Manhattan 19, New York City (899 10th Ave. at 59th St.)	Arthur Franzen
Hunter College High School of the City of New York (1929)	Manhattan 21, New York City (930 Lexington Ave.)	Dr. Jean F. Brown
Julia Richman High School.. (1928)	Manhattan 21, New York City (317 East 67th St.)	Miss Marion D. Jewell

SCHOOL	LOCATION	HEAD
Straubenmuller Textile High School .....(1929)	Manhattan 11, New York City (351 West 18th St.)	H. Norman Ford
Stuyvesant High School, Peter (1939)	Manhattan 3, New York City (345 East 15th St.)	Fred Schoenberg
Queens Borough:		
Flushing High School.(1928)	Queens, New York City ... (Northern Boulevard & Union St., Flushing)	Dr. John V. Walsh
Grover Cleveland High School .....(1936)	Queens 27, New York City.. (2127 Himrod St., Ridgewood)	Dr. Charles A. Tonsor
Jamaica High School.(1928)	Queens 3, New York City .. (168th St. & Gothic Drive)	Dr. Charles H. Vosburgh
Newtown High School..... (1928)	Queens, New York City ... (48-01 90th St., Elmhurst, L. I.)	Alfred S. Roberts
Richmond Borough:		
Curtis High School...(1928)	Richmond Borough, New York City ..... (Hamilton Ave. & Saint Marks Place, Staten Island 1)	John M. Avent
New York Military Academy.... (1932)	Cornwall-on-Hudson	{Lt. Col. Frank A. Pattille {H. M. Scarborough
Newark High School.....(1928)	Newark	Norman R. Kelley
Nichols School of Buffalo, The.. (1928)	Buffalo 13 ..... (Amherst & Calvin Sts.)	Philip M. B. Boocock
Nightingale-Bamford School, The (1938)	Manhattan Borough 28, New York City ..... (20 East 92d St.)	Miss Maya Stevens Bamford
Northport High School...(1929)	Northport ..... (Laurel Ave.)	Miss Adelheid M. M. Kaufmann
Northwood School .....(1928)	Lake Placid Club	Dr. Ira A. Flinner
Nott Terrace High School.(1943)	Schenectady 8	J. Harry Adams
Oakwood School .....(1939)	Poughkeepsie	William J. Reagan
Oneonta High School..... (1928-30; 1935)	Oneonta	Dr. Robert G. Andree
Oswego High School.....(1932)	Oswego	Ralph M. Faust
Our Lady of Mercy High School (1946)	Rochester 10 ..... (1437 Blossom Rd.)	Sister M. Francesca, R.S.M.
Packer Collegiate Institute, The (High School Dept.) (1928)	Brooklyn 2, New York City (170 Joralemon St.)	Dr. Paul David Shafer
Park School of Buffalo..... (1928-34; 1944)	Buffalo 21 ..... (115 North Harlem Rd., Snyder)	M. Adolphus Cheek, Jr.
Pelham Memorial High School... (1928)	Pelham 65	William W. Fairclough
Pleasantville High School.(1935)	Pleasantville	Carlton W. Clough
Polytechnic Preparatory Country Day School, The.....(1928)	Brooklyn 9, New York City.. (92d St. & 7th Ave., Dyker Heights)	Dr. Joseph Dana Allen
Port Washington Senior High School .....(1933)	Port Washington	William F. Merrill
Regis High School .....(1928)	Manhattan 28, New York City (55 East 84th St.)	Rev. Charles T. Taylor
Riverdale Country School for Boys .....(1928)	Bronx 63, New York City.. (Fieldston Rd. & 252d St., Riverdale-on-Hudson)	Frank S. Hackett

SCHOOL	LOCATION	HEAD
Riverdale Country School for Girls .....(1943)	Bronx 63, New York City.. (249th St. & Palisade Ave., Riverdale-on-Hudson)	Miss Miriam D. Cooper
Rochester Public High Schools:		
Benjamin Franklin High School .....(1934)	Rochester 5 ..... (950 Norton St.)	Roy L. Butterfield
Charlotte High School ..... (1928-32; 1934)	Rochester 12 ..... (4115 Lake Ave.)	George E. Eddy
Jefferson High School ..(1945)	Rochester 6 ..... (Edgerton Park)	Arnold H. Swift
John Marshall High School ... (1928)	Rochester 13 ..... (180 Ridgeway Ave.)	C. Willard Burt
Madison High School ..(1939)	Rochester 11 ..... (101 Epworth St.)	Frank M. Jenner
Monroe High School ...(1929)	Rochester 7 ..... (164 Alexander St.)	William Earl Hawley
Rochester East High School ... (1928)	Rochester 7 ..... (410 Alexander St.)	William C. Wolgast
Rochester West High School... (1928)	Rochester 11 ..... (501 Genesee St.)	Dr. Charles H. Holzwarth
Rockville Center Southside High School .....(1946)	Rockville Center	J. Dale McKibben
Rye Country Day School..(1928)	Rye ..... (Boston Post Rd. & Cedar St.)	Morton Snyder
Rye High School ..... (1928-32; 1935)	Rye ..... (Parsons St.)	Wayne L. Lowe
Saint Agnes School for Girls ... (1932)	Albany 4 ..... (Loudenville Rd.)	Miss Blanche Pittman
Saint John's Preparatory School (1934)	Brooklyn 6, New York City (82 Lewis Ave.)	Rev. John P. Cotter, C.M.
Saint Joseph's Normal Institute.. (1942)	Barrytown	Brother Augustine
Saint Mary's School, Mount Saint Gabriel .....(1928)	Peekskill	Miss Harriet S. Sheldon
Saint Paul's School .....(1928)	Garden City	Walter R. Marsh
Saint Walburga's Academic School .....(1928)	Manhattan 31, New York City (630 Riverside Drive)	Mother Mary Elizabeth, S.H.C.J.
Scarborough School .....(1928)	Scarborough-on-Hudson ...	Cornelius B. Boocock
Scarsdale High School ...(1942)	Scarsdale	Lester W. Nelson
Sewanhaka High School ..(1935)	Floral Park ..... (Tulip & Covert Aves.)	Dr. Alva T. Stanforth
Sherburne High School ..(1928)	Sherburne	Albert L. Bonner
Spence School .....(1935)	Manhattan 28, New York City (22 East 91st St.)	Mrs. Dorothy Brockway Osborne
Staten Island Day School, The .. (1928)	Richmond Borough, New York City ..... (45 Wall St., Staten Island 1, New Brighton)	Harold Ely Merrick
Stony Brook School, The..(1928)	Stony Brook	Dr. Frank E. Gaebelein
Trinity School .....(1935)	Manhattan 24, New York City (139 West 91st St.)	Matthew Edward Dann
Tuckahoe High School ...(1938)	Tuckahoe 7	Henry E. Proehl
Ursuline School of New Rochelle, The .....(1930)	New Rochelle ..... (1354 North Ave.)	Mother Marie Louise, O.S.U.
Valley Stream Central High School .....(1934)	Valley Stream	Paul T. Wohlsen
Waverly High School.....(1930)	Waverly ..... (Elm St.)	Luther B. Adams

SCHOOL	LOCATION	HEAD
Wellsville High School...(1928)	Wellsville	Alvin R. Dunbar
Woodmere Academy .....(1928)	Woodmere	Dr. Horace M. Perry
Xavier High School, The, of the College of St. Francis Xavier (1928)	Manhattan 11, New York City (30 West 16th St.)	Rev. Thomas J. Doyle
	PANAMA CANAL ZONE	
Balboa High School .....(1929)	Balboa Heights ..... (704 Roosevelt Ave.)	Sigurd E. Esser
Cristobal High School....(1929)	Cristobal ..... (Drawer GG)	Theodore F. Hotz
	PENNSYLVANIA	
Abington Friends School..(1935)	Jenkintown	Miss Anne Lois Ritz
Abington Township Senior High School .....(1928)	Abington	Eugene B. Gernert
Academy of Notre Dame de Namur .....(1930)	Villanova ..... (Sproul Rd., Route 320)	Sister Evelyn Marie, S.N.D.
Academy of the Sacred Heart... (1928)	Philadelphia 14 ..... (Eden Hall, Grant Ave. bel. Frankford, Torresdale)	Rev. Mother M. Teresa Hill, R.S.C.J.
Academy of the Sisters of Mercy (1931)	Philadelphia 21 ..... (Broad St. & Columbia Ave.)	Sister Mary de la Salle, R.S.M.
Agnes Irwin School, The..(1936)	Wynnewood ..... (Lancaster Pike & Clothier Rd.)	Mrs. Grier Bartol Miss Edith H. Murphy
Allentown Central Catholic High School .....(1944)	Allentown ..... (4th & Chew Sts.)	Rev. Henry J. Huesman
Allentown High School ..(1932)	Allentown ..... (17th & Turner Sts.)	James W. Richardson
Altoona High School ....(1931)	Altoona	Joseph N. Maddocks
Ambler High School .....(1928)	Ambler ..... (909 Duss Ave.)	Earl T. Baker
Ambridge Senior High School .. (1931)	Ambridge	Dr. Joseph M. Benkert
Aspinwall High School ..(1930)	Pittsburgh 15 ..... (4th St. & Virginia Ave., Aspinwall)	Charles A. Evans
Avalon High School .....(1930)	Pittsburgh 2 ..... (721 California Ave., Avalon)	Charles A. Evans
Avon-Grove Joint Consolidated High School .....(1933)	West Grove (R.D.)	Hugh C. Morgan
Avonworth High School..(1934)	Pittsburgh 2 ..... (200 Dickson Ave., Ben Avon)	Warren Hollenback
Baldwin School, The ....(1928)	Bryn Mawr	Miss Rosamund Cross
Baldwin Township High School (1943)	Pittsburgh 10 ..... (376 Clairton Rd.)	Dr. Warren R. Maley
Bangor High School .....(1936)	Bangor	Donald B. Keat
Barrett Township High School .. (1937)	Cresco	Miss Sue C. Price
Beaver Falls Senior High School (1930)	Beaver Falls	Dr. Lawrence D. Smith
Beaver High School .....(1928)	Beaver	Charles S. Linn
Bedford High School ....(1936)	Bedford	Dr. Eugene K. Robb
Bellevue High School ....(1928)	Pittsburgh 2 ..... (435 Lincoln Ave., Bellevue)	Robert H. Ruthart

SCHOOL	LOCATION	HEAD
Bensalem Township High School (1932)	Cornwell Heights	Miss Cecelia Snyder
Biglerville High School...(1928)	Biglerville	L. V. Stock
Blairsville High School...(1929)	Blairsville	Nevin Montgomery
Boyertown High School...(1933)	Boyertown	Lawrence E. Grim
Bradford Senior High School.... (1928)	Bradford	George A. Bell
Brentwood High School...(1943)	Brentwood, Pittsburgh 10 .. (3501 Brownsville Rd.)	Samuel E. McDonald
Bristol High School .....(1933)	Bristol	David L. Hertzler
Brookville Junior-Senior High School .....(1928)	Brookville	J. E. Biery
California High School...(1934)	California	William H. First
Camp Hill High School ..... (1928-33; 1943)	Camp Hill ..... (24th & Chestnut Sts.)	Fred C. Bower
Canton Borough Junior-Senior High School .....(1928)	Canton	J. T. Williammee, Jr.
Carlisle High School .....(1930)	Carlisle	Mark N. Burkhart
Carson Long Institute ...(1929)	New Bloomfield	Eugene Heine
Cecilian Academy, The (Girls) (1942)	Philadelphia 19 ..... (138-144 West Carpenter's Lane, Mt. Airy)	Sister Saint Ursula, S.S.J.
Chambersburg High School .... (1941)	Chambersburg	Ralph I. Schockey
Charleroi Senior High School.... (1929)	Charleroi	W. H. Clipman, Jr.
Cheltenham Township Senior High School .....(1928)	Philadelphia 17 ..... (High School Rd. & Montgomery Ave., Elkins Park)	Howard W. Fields
Chester High School ....(1945)	Chester	Karl E. Agan
Clairton Senior High School .... (1928)	Clairton	Dr. E. F. Stabler
Clarks Summit and Clarks Green Joint High School.... (1928)	Clarks Summit	H. Austin Snyder
Clearfield Senior High School... (1936)	Clearfield	W. Howard Mead
Clifton Heights High School .... (1941)	Clifton Heights	Russell L. Williams
Coatesville High School ..(1928)	Coatesville	William Muthard
Collingdale High School..(1934)	Collingdale	Francis L. Ambrose
Convent School of the Sacred Heart .....(1930)	Philadelphia 31 ..... (City Line & Haverford Rd., Overbrook)	Mother Helen Fitzgerald, R.S.C.J.
Coraopolis Senior High School.. (1929)	Coraopolis	H. E. Houtz
Crafton Borough High School .. (1928)	Pittsburgh 5 ..... (Crafton)	Dr. Edwin B. Leaf
Darby High School .....(1928)	Darby	J. Wallace Saner
Dormont High School ....(1928)	Pittsburgh 16 ..... (Annapolis Ave., Dormont)	C. E. Glass
Downingtown Junior-Senior High School .....(1935)	Downingtown	Charles P. Emery
Doylestown Borough High School (1929)	Doylestown	Arthur T. Reese
DuBois High School.....(1929)	DuBois	Elton J. Mansell
East Pittsburgh Junior-Senior High School .....(1936)	East Pittsburgh	Dr. Charles F. Young
East Stroudsburg Senior High School .....(1935)	East Stroudsburg	Ralph O. Burrows

SCHOOL	LOCATION	HEAD
East Washington High School... (1928)	Washington	Arlton G. Grover
Easton Senior-Junior High School (1928)	Easton	Elton E. Stone
Ebensburg-Cambria High School (1932)	Ebensburg	E. M. Johnston
Ellis College for Education of Fatherless Girls (High School), Charles E. ..(1936)	Newtown Square	A. Edward Tedesco
Ellis School, The .....(1928)	Pittsburgh 13 ..... (4860 Ellsworth Ave.)	Miss Marjorie Llewellyn Tilley
Episcopal Academy, The..(1928)	Philadelphia 31 ..... (City Line & Berwick Rd., Overbrook)	Greville Haslam
Erie Public High Schools:		
Academy High School..(1928)	Erie ..... (29th at State St.)	John W. Ray
Erie East High School..(1930)	Erie ..... (Brandes & Atkins Sts.)	W. Edwin Coon
Strong Vincent High School... (1931)	Erie ..... (1330 West 8th St.)	H. D. Leberman
Fleetwood Junior-Senior High School .....(1932)	Fleetwood	Matthew J. A. Smith
Ford City Junior-Senior High School .....(1930)	Ford City	Paul N. Marsh
Forty Fort Junior-Senior High School .....(1930)	Wilkes-Barre ..... (Forty Fort)	Frank W. Walp
Freeland Mining and Mechanical Institute ....(1929-31; 1936)	Freeland	Lambert E. Broad
Friends Central School of Philadelphia .....(1928)	Philadelphia 31 ..... (68th St. & City Line, Overbrook)	Clayton L. Farraday, Jr.
Friends Select School of Philadelphia .....(1928)	Philadelphia 3 ..... (17th St. & Parkway)	Harris G. Haviland
George School .....(1928)	George School	George A. Walton
Germantown Academy ...(1928)	Philadelphia 44 ..... (S. W. Cor. School Lane & Greene St., Germantown)	Samuel E. Osbourn
Germantown Friends School .... (1928)	Philadelphia 44 ..... (Germantown Ave. & Coulter St., Germantown)	Burton P. Fowler
Gettysburg High School ..(1930)	Gettysburg	G. W. Lefever
Girard College (High School) .. (1928)	Philadelphia 21 ..... (Corinthian & Girard Aves.)	Dr. D. Montford Melchior
Glen-Nor High School....(1931)	Glenolden	Russell E. Bamberger
Greensburg High School..(1930)	Greensburg	Samuel W. Jacobs
Grier School, The .....(1928)	Birmingham	Thomas Campbell Grier Miss Dorothy Bornhold
Hamburg High School....(1936)	Hamburg	John N. Land
Harrisburg Public High Schools:		
John Harris High School..... (1928)	Harrisburg ..... (25th & Market & Hale Sts.)	Dr. Horace G. Geisel
William Penn High School.... (1928)	Harrisburg ..... (6th & Division Sts.)	Harry De Wire
Hatboro High School.....(1943)	Hatboro	Chester H. Barnes
Haverford School, The...(1928)	Haverford	Leslie Richard Severinghaus
Haverford Township Senior High School .....(1928)	Havertown ..... (Brookline, Upper Darby)	Oscar Granger

SCHOOL	LOCATION	HEAD
Hawley High School ....(1936)	Hawley	Albert H. Haggarty
Hazleton Senior High School.... (1928)	Hazleton	Bruce F. Lamont
Hershey Industrial School.(1936)	Hershey ..... (R.D. 2)	W. Allen Hammond
Hill School, The .....(1928)	Pottstown	James I. Wendell
Hollidaysburg Senior High School (1939)	Hollidaysburg	J. Harry Henshaw
Holmquist School .....(1930)	New Hope	Miss Leslie Blanchard
Homestead High School ..... (1931-37; 1944)	Homestead	D. H. Conner
Honesdale High School..(1940)	Honesdale ..... (1015 Church St.)	Paul Brock
Indiana High School ....(1928)	Indiana	Jesse A. Lubold
Jeannette High School....(1932)	Jeannette	John Maclay
Jenkintown Borough Junior-Senior High School..(1930)	Jenkintown	Requa W. Bell
Johnstown Central Senior High School .....(1930)	Johnstown ..... (Cor. Somerset & Napoleon Sts.)	Walter C. Davis
Kane High School .....(1928)	Kane	Paul R. Miller
Kennett Consolidated High School (1938)	Kennett Square	W. Earle Rupert
Kingston High School....(1932)	Kingston	P. A. Golden
Kiskiminetas Springs School, The (Boys) .....(1929)	Saltsburg	L. M. Clark
Kutztown High School....(1944)	Kutztown	Harry B. Yoder
La Salle High School ....(1931)	Philadelphia 41 ..... (20th St. & Olney Ave.)	Brother David
Lancaster Catholic High School.. (1936)	Lancaster ..... (650 Juliette Ave., Rossmere)	Rev. Anthony F. Kane
Lancaster Country Day School.. (1930)	Lancaster ..... (120 N. Lime St.)	Miss Rebecca Walton Griest
Lancaster—John Piersol McCaskey High School .... (1939)	Lancaster ..... (N. Reservoir St.)	Benjamin B. Herr
Lansdale Senior High School ... (1931)	Lansdale	Herman L. Bishop
Lansdowne High School..(1928)	Lansdowne ..... (Essex & Green Aves.)	Dr. E. Carlton Abbott
Latrobe High School ....(1928)	Latrobe	Mark N. Funk
Lawrence Park Junior-Senior High School .....(1939)	Erie ..... (Morse St., Lawrence Park)	D. V. Skala
Lebanon Senior High School .... (1928)	Lebanon	C. E. Gaskins
Leetsdale Junior-Senior High School .....(1931)	Leetsdale	Dr. James S. Snoke
Lehighton High School...(1932)	Lehighton	H. G. Sensinger
Lewistown Junior-Senior High School .....(1936)	Lewistown	Ralph H. Maclay
Lincoln High School .....(1928)	Midland	Walter G. Patterson
Linden Hall Seminary....(1928)	Lititz	Dr. F. W. Stengel
Lititz Borough High School..... (1928)	Lititz ..... (Range & Cedar Sts.)	Melvin H. Brubaker
Lock Haven Senior High School (1931)	Lock Haven	Reagan I. Hoch
Lower Merion Senior High School .....(1931)	Ardmore	George H. Gilbert
McKeesport High School..(1943)	McKeesport ..... (Bailey & Cornell Sts.)	Dr. Howard C. McElroy

SCHOOL	LOCATION	HEAD
Mahanoy City High School ..... (1943)	Mahanoy City ..... (500 E. Center St.)	Howard C. Amour
Malvern Preparatory School .... (1945)	Malvern	Rev. Francis L. Dennis
Manheim Boro Junior-Senior High School .....(1928)	Manheim	H. C. Burgard
Manheim Township High School (1935)	Neffsville	Arthur R. Ott
Manor-Millersville High School. (1929)	Millersville	A. N. Ranck
Marywood Seminary .....(1928)	Scranton 9 ..... (2300 Adams Ave.)	Sister Mary Eugenia, Ph.D., I. H. M.
Mater Misericordiae Academy... (1928)	Merion Station	Sister Agnes Mary, R.S.M.
Mauch Chunk Junior-Senior High School .....(1930)	Mauch Chunk ..... (Centre & Pine Sts.)	Miss Mary F. Bevan
Mauch Chunk Township Junior-Senior High School...(1928)	Nesquehoning ..... (90 E. Catawissa St.)	Robert W. Steventon
Mechanicsburg Junior-Senior High School .....(1932)	Mechanicsburg	J. G. Haggerty
Media High School .....(1933)	Media	John K. Barrall
Mercersburg Academy, The .... (1928)	Mercersburg	Dr. Charles S. Tippetts
Mercyhurst Seminary ....(1933)	Erie ..... (501 E. 38th St. Blvd.)	Sister Jean Marie, R.S.M.
Milford High School ...(1928)	Milford	Ira C. Markley
Millcreek High School ...(1930)	Erie ..... (R.D. 2)	B. A. Goodrich
Milton S. Hershey Junior-Senior High School...(1935)	Hershey	George D. Lange
Minersville High School..(1932)	Minersville	William J. Murphy
Mohnton High School....(1940)	Mohnton	Charles O. Metcalf
Monaca Senior High School..... (1939)	Monaca	Eudore G. Groleau
Moravian Preparatory School... (1934)	Bethlehem ..... (Heckewelder St.)	J. Walter Gapp
Moravian Seminary for Women (1942)	Bethlehem ..... (87 W. Church St.)	Miss Naomi L. Haupert
Morrisville High School..(1932)	Morrisville	E. Leonard Caum
Mount Joy Borough High School (1928)	Mount Joy	W. I. Beahm
Mount Lebanon High School.... (1933)	Pittsburgh 16 ..... (Cochran Rd., Mount Lebanon)	Dr. Ralph D. Horsman
Mount Penn Junior-Senior High School .....(1930)	Reading ..... (25th & Filbert Sts., Mt. Penn	Roscoe H. Ward
Mount Pleasant High School ... (1933)	Mount Pleasant	Dr. G. Clifford Singley
Mount Saint Joseph Academy.... (1928)	Philadelphia 18 ..... (Chestnut Hill)	Mother Denis Marie, S.S.J.
Muhlenberg Township High School .....(1931)	Laureldale	C. S. Crumbling
Munhall High School ....(1928)	Munhall	Max W. Wherry
Nazareth Senior High School... (1937)	Nazareth	Miss Florence L. Nicholas
Nether Providence Township High School .....(1936)	Wallingford	Howard A. Wentz
New Cumberland High School.. (1932)	New Cumberland	S. P. Bomgardner
New Holland High School (1934)	New Holland	Joseph R. Kleckner

SCHOOL	LOCATION	HEAD
New Kensington High School... (1928)	New Kensington	Dr. H. B. Weaver
Newport Township High School (1936)	Wanamie	John Kanyuck
Newtown Boro High School.... (1945)	Newtown	Miss Naomi Beaty
Norristown Senior High School.. (1928)	Norristown ..... (Markley St. & Coolidge Blvd.)	Miss Emma E. Christian
North East Joint High School... (1937)	North East	E. C. Davis
North Wales High School. (1942)	North Wales	Miss Sydney E. Myers
Northampton Senior High School (1932)	Northampton	Ira L. Sheaffer
Norwin Union High School..... (1941)	Irwin ..... (18th & Lincoln Ave.)	J. W. Clawson
Ogontz School .....(1931)	Rydal ..... (Woodland Rd.)	Dr. Abby A. Sutherland
Oley Township High School.... (1940)	Oley	Frederick H. Stauffer
Otto Junior-Senior High School.. (1938)	Duke Center	A. E. Wilmarth
Our Lady of Mercy Academy... (1941)	Pittsburgh 13 ..... (3333 5th Ave.)	Sister M. Gerald, R.S.M.
Palmerton Junior-Senior High School .....(1928)	Palmerton	Donald W. Denniston
Penn Hall Preparatory School... (1928)	Chambersburg ..... (1455 Phila. Ave.)	Frank S. Magill
Perkiomen School .....(1928)	Pennsburg	Albert E. Rogers
Philadelphia Public High Schools:		
Benjamin Franklin High School (1941)	Philadelphia 30 ..... (Broad & Green Sts.)	Charles H. Williams
Frankford Senior High School (1928)	Philadelphia 24 ..... (Oxford Ave. & Wakeling St.)	Dr. Frank L. Cloud
Germantown High School .... (1928)	Philadelphia 44 ..... (Germantown Ave. & High St., Germantown)	Charles R. Nichols
John Bartram High School ... (1941)	Philadelphia 42 ..... (67th St. & Elmwood Ave.)	Wesley E. Scott
Kensington High School for Girls .....(1928)	Philadelphia 25 ..... (Cumberland & Coral Sts.)	Mrs. Marie K. Longshore
Olney Senior High School .... (1932)	Philadelphia 20 ..... (Front & Duncannon Sts.)	Andrew S. Haines
Overbrook High School (1928)	Philadelphia 31 ..... (59th St. & Lancaster Ave.)	William M. Clime
Philadelphia Central High School .....(1928)	Philadelphia 41 ..... (Ogontz & Olney Aves.)	Dr. William H. Cornog
Philadelphia High School for Girls .....(1928)	Philadelphia 30 ..... (17th & Spring Garden Sts.)	Miss Helen Bailey
Philadelphia Northeast High School .....(1928)	Philadelphia 33 ..... (8th St. & Lehigh Ave.)	Dr. Theodore S. Rowland
Roxborough Senior and Junior High School .....(1928)	Philadelphia 28 ..... (Ridge Ave. & Fountain St.)	Dr. Luther F. Waidelich
Simon Gratz High School .... (1930)	Philadelphia 40 ..... (17th & Luzerne Sts.)	Dr. E. Carl Werner
South Philadelphia High School for Boys .....(1928)	Philadelphia 48 ..... (Broad & Jackson Sts.)	Matthias H. Richards

SCHOOL	LOCATION	HEAD
South Philadelphia High School for Girls..(1928-37; 1942)	Philadelphia 48 ..... (2101 S. Broad St.)	Dr. Elmer Field
West Philadelphia Senior High School .....(1928)	Philadelphia 39 ..... (48th & Walnut Sts.)	Walter Roberts
William Penn High School for Girls .....(1928)	Philadelphia 30 ..... (15th & Wallace Sts.)	Miss Amanda Streeper, 2d
Philadelphia Roman Catholic Diocesan High Schools:		
John W. Hallahan Catholic Girls High School..(1929)	Philadelphia 3 ..... (19th & Wood Sts.)	Sister Mary Adele, Ph.D.
Little Flower Catholic High School for Girls ...(1945)	Philadelphia 40 ..... (10th & Lycoming Sts.)	Sister Mary Daniel, S.S.J.
Philadelphia Northeast Catholic High School for Boys .... (1936)	Philadelphia 24 ..... (Kensington & Torresdale Aves.)	Rev. Edward F. Smith
Philadelphia Roman Catholic High School .....(1928)	Philadelphia 7 ..... (Broad & Vine Sts.)	Rev. John A. Cartin
Philadelphia Southeast Catholic High School for Boys .... (1939)	Philadelphia 47 ..... (7th & Christian Sts.)	Dr. Louis Antoine Victor DeCleene, O. Praem.
West Philadelphia Catholic Girls High School..(1930)	Philadelphia 39 ..... (45th & Chestnut Sts.)	Sister Louise Marie, I.H.M.
West Philadelphia Catholic High School for Boys .... (1932)	Philadelphia 39 ..... (49th & Chestnut Sts.)	Brother E. Anselm, Ph.D.
Phoenixville Senior High School (1928)	Phoenixville	Edgar T. Robinson
Pittsburgh Central District Catholic (Boys) High School (1932)	Pittsburgh 13 ..... (4720 Fifth Ave.)	Brother Gabriel Cecilian
Pittsburgh Public High Schools:		
Allegheny High School..(1929)	Pittsburgh 12 ..... (810 Sherman Ave.)	R. C. Millikin
Carrick Junior-Senior High School .....(1928)	Pittsburgh 10 ..... (125 Parkfield St.)	Roy J. Mathias
David B. Oliver Junior-Senior High School .....(1928)	Pittsburgh 12 ..... (2200 Brighton Rd. at Island Ave., N.S.)	Dr. John F. Bailey
Fifth Avenue Junior-Senior High School .....(1928)	Pittsburgh 19 ..... (1800 Fifth Ave. at Miltenberger St.)	James E. Shannon
George H. Westinghouse Junior-Senior High School (1928)	Pittsburgh 8 ..... (Murtland Ave. & Monticello St.)	Clark B. Kistler
Peabody High School ..(1928)	Pittsburgh 6 ..... (Beatty & Margaretta Sts.)	Donald Edwin Miller
Perry Junior-Senior High School .....(1928)	Pittsburgh 14 ..... (Perrysville Ave. & Semicir St.)	E. R. Carson

SCHOOL	LOCATION	HEAD
Pittsburgh South Side Junior-Senior High School. (1928)	Pittsburgh 3 ..... (S. 10th & Carson Sts.)	Chester L. Sterling
Samuel P. Langley Junior-Senior High School. (1928)	Pittsburgh 4 ..... (Chartiers & Robina Sts.)	Dr. Bruce Cobaugh
Schenley High School .. (1928)	Pittsburgh 13 ..... (Bigelow Blvd. & Center Ave.)	Harvey P. Roberts
South Hills High School. (1928)	Pittsburgh 11 ..... (Ruth & Secane Sts., Mount Washington)	Philip H. Rinehart
Taylor Allderdice Junior-Senior High School. (1931)	Pittsburgh 17 ..... (Shady & Forward Aves.)	J. D. McClymonds
Port Allegany Senior High School .....(1933)	Port Allegany	Fred N. Hardy
Pottstown Senior High School .. (1932)	Pottstown ..... (Penn & Chestnut Sts.)	H. L. Smith
Pottsville High School ...(1930)	Pottsville	D. H. H. Lengel
Prospect Park Borough Junio-Senior High School ..(1933)	Prospect Park	Russell L. Williams
Quakertown Junior-Senior High School .....(1932)	Quakertown	A. Franklin Hunsberger
Radnor Township Senior-Junior High School .....(1928)	Wayne	Dr. Cecil L. Rice
Reading Senior High School ... (1928)	Reading ..... (13th & Douglass Sts.)	Earl A. Master
Red Lion Junior-Senior High School .....(1928)	Red Lion	Edgar C. Moore
Ridley Park Junior-Senior High School .....(1929)	Ridley Park	J. Layton Moore
Rochester Senior High School .. (1928)	Rochester	Fenton H. Farley
Royersford High School ..(1933)	Royersford	Thomas D. Evans, Jr.
Saint Benedict Academy..(1928)	Erie ..... (345 East 9th St.)	Sister M. deSales Austin, O.S.B.
Saint John Kanty College High School .....(1928)	Erie ..... (3002 East 38th St.)	Rev. Michael Sadowski
Saint Joseph Academy of Seton Hill .....(1929)	Greensburg	Sister M. Francesca Brownlee, S.C.
Saint Joseph's College High School .....(1928)	Philadelphia 21 ..... (18th & Thompson Sts.)	Rev. John F. Lenny
Saint Leonard's Academy of the Holy Child .....(1930)	Philadelphia 4 ..... (3833 Chestnut St.)	Mother Mary Esther, S.H.C.J.
Saint Mary's Academy ..(1937)	Philadelphia 41 ..... (5401 Old York Rd.)	Mother Teresa Vincent, S.S.J.
Saint Mary's Catholic High School .....(1932)	Saint Marys	Sister M. Isabel, O.S.B.
Saint Rosalia High School ..... (1938)	Pittsburgh ..... (511 Greenfield Ave.)	Sister M. Cletus
Saint Vincent Preparatory School (1944)	Latrobe	Rev. Edmund Cuneo, O.S.B., Ph.D.
Sayre High School .....(1932)	Sayre	Judson F. Kast
School of the Holy Child Jesus .. (1929)	Sharon Hill	Mother Mary Fintan, S.H.C.J.
Scranton Central High School .. (1928)	Scranton 10 ..... (Cor. Vine St. & Washington Ave.)	Albert T. Jones

SCHOOL	LOCATION	HEAD
Sellersville-Perkasie Joint High School ..... (1932)	Perkasie	Howard M. Nace
Sewickley High School ... (1931)	Sewickley	W. Henry Beighlea
Shady Side Academy (Boys) ... (1928)	Pittsburgh 15 ..... (Fox Chapel Road)	Rev. Erdman Harris
Shaler High School ..... (1946)	Glenshaw	Miss Mary Ruth Jeffery
Sharon Hill Junior-Senior High School ..... (1934)	Sharon Hill	C. K. Wagner
Shillington High School .. (1929)	Shillington	Luther A. Weik
Shipley School, The ..... (1928)	Bryn Mawr	Miss Margaret Bailey Speer
Shippensburg Senior High School ..... (1945)	Shippensburg	Charles B. Derick
Slippery Rock Campus Junior-Senior High School of the Slippery Rock State Teachers College ..... (1935)	Slippery Rock	Dr. Herbert Book
Solebury School for Boys . (1931)	New Hope	Arthur H. Washburn
Souderton High School .. (1935)	Souderton	E. M. Crouthamel
Southmont Junior-Senior High School ..... (1939)	Johnstown ..... (307 State St., Southmont Boro)	Wilbur C. Wolf
Spring City Junior-Senior High School ..... (1939)	Spring City	Charles H. Wise
Springfield Township High School of Delaware County.. (1937)	Media ..... (Leamy Ave. & Rolling Rd., Springfield)	Milton L. Smith
Springfield Township High School of Montgomery County ..... (1928)	Philadelphia 18 ..... (Hillcrest Ave. east of Bethlehem Pike, Chestnut Hill)	Richard C. Ream
Springside School ..... (1934)	Philadelphia 18 ..... (Norwood & East Chestnut Aves., Chestnut Hill)	Mrs. Margaret Tyler Paul
State College High School. (1940)	State College	W. H. Passmore
Steelton High School .... (1928)	Steelton	E. U. Balsbaugh
Stevens School for Girls.. (1930)	Philadelphia 44 ..... (143 West Walnut Lane, Germantown)	Mrs. Mildred Swan Borden
Stroudsburg High School.. (1928)	Stroudsburg	John S. Cartwright
Sunbury Senior High School ... (1934)	Sunbury	Frederick Padgett
Swarthmore High School.. (1928)	Swarthmore	G. Baker Thompson
Swissvale High School ... (1928)	Swissvale	L. M. Douglas
Tarentum High School .. (1928)	Tarentum	Charles C. Stoops
Temple University High Scohol.. (1928)	Philadelphia 21 ..... (1417 Diamond St.)	H. E. Harting
Titusville High School ... (1932)	Titusville	E. F. Bitters
Tredyffrin-Easttown Joint High School ..... (1928)	Berwyn ..... (Conestoga & Howellville Rds.)	Wallace S. Brey
Troy High School ..... (1929)	Troy	W. R. Croman
Tunkhannock Junior-Senior High School ..... (1928)	Tunkhannock	Frank T. Dolbear
Turtle Creek Senior High School (1944)	Turtle Creek	Ralph C. Hughes
Uniontown Senior High School .. (1933)	Uniontown	R. D. Mosier

SCHOOL	LOCATION	HEAD
Upper Darby Senior High School (1928)	Upper Darby	Dr. J. E. Nancarrow
Upper Merion Township High School (1945)	Bridgeport, R.D. 1	Robert R. Strine
Upper Moreland Township High School (1946)	Willow Grove (York Rd. & Cedar Ave.)	J. Newton Cowan
Valley Forge Military Academy. (1932)	Wayne	Gen. Milton G. Baker
Villa Maria Academy (1932)	Erie (West 8th St.)	Sister Emilene, S.S.J.
Villa Maria Academy (1928)	Malvern	Sister Mary Catherine Louise, I.H.M.
Villa Maria High School (1928)	Villa Maria	Sister Mary Dolora, S.H.H.M.
Warren High School (1928)	Warren	Floyd W. Bathurst
Washington Seminary (1930)	Washington	Mrs. Jane Crowe Maxfield
Waynesboro Senior High School (1942)	Waynesboro	Paul E. Shull
Wellsboro Junior-Senior High School (1935)	Wellsboro	Rock L. Butler
West Chester High School. (1929)	West Chester	B. Reed Henderson
West Reading High School (1928)	West Reading	Edwin B. Yeich
West York Junior-Senior High School (1928)	York	Palmer E. Poff
Westmont-Upper Yoder High School (1928)	Johnstown (10th Ave. & Luzerne St.)	Willard E. Ackley
Westtown School (1928)	Westtown	James F. Walker
Wilkes-Barre Public High Schools:		
Elmer L. Meyers High School. (1933)	Wilkes-Barre (Carey Ave.)	J. Franck Dennis
G. A. R. Memorial High School (1930)	Wilkes-Barre (S. Sherman & Lehigh Sts.)	S. R. Henning
James M. Coughlin High School (1928)	Wilkes-Barre (N. Washington St.)	J. H. Super
Wilkinsburg Senior High School (1930)	Pittsburgh 21 (747 Wallace Ave., Wilkinsburg)	Edward F. Ege
William Penn Charter School (1928)	Philadelphia 44 (School Lane & Fox St., Germantown)	Dr. John Flagg Gummere
William Penn Senior High School (1928)	York (Beaver St. & College Ave.)	Dr. Edward A. Glatfelter
Williamsport-Dickinson Seminary (1928)	Williamsport 52	Dr. John W. Long
Williamsport High School. (1928)	Williamsport 19	L. F. Derr
Wilson Borough Junior-Senior High School (1928)	Easton (22nd St. & Washington Blvd., Borough of Wilson)	J. Harry Dew
Wilson High School of Spring Township (1945)	West Lawn	Eugene F. Stoudt
Wyoming Seminary (1928)	Kingston	Dr. Wilbur H. Fleck
Wyomissing High School.. (1928)	Wyomissing	Allen W. Rank
Yeadon Junior-Senior High School (1939)	Lansdowne P. O. (Baily Rd. & Cypress St., Yeadon)	Thomas A. Clingan

SCHOOL	LOCATION	HEAD
York Collegiate Institute, York County Academy ....(1928)	York ..... (Duke St. & College Ave.)	Lester F. Johnson
	SWITZERLAND	
International School of Geneva.. (1936)	Geneva ..... (62 route de Chêne)	Madame F. Maurette

N.B.: In case the headship of a school changes prior to December first, please notify us.

MEMBERSHIP ORGANIZATIONS

JANUARY 1, 1946

ORGANIZATION	LOCATION	HEAD
Baltimore City Department of Education	Baltimore, Md	David E. Weglein
Delaware Department of Public Instruction	Dover, Del	H. V. Holloway
Elizabeth Department of Education	Elizabeth, N. J.	Ira T. Chapman, Supt.
High School Principals Association	New York City ..... (345 E. 15th St.)	Sinclair J. Wilson
Jersey City Superintendent of Schools	Jersey City, N. J.	James F. Nugent
New Jersey Department of Public Instruction	Trenton, N. J.	William A. Ackerman
Pennsylvania State Department of Public Instruction	Harrisburg, Pa.	C. O. Williams
State Department of Education..	Baltimore, Md.	Thomas C. Pullens, Jr.
University of the State of New York	Albany, N. Y.	

HONORARY MEMBERS

Dr. William A. Wetzel	12 Belmont Circle	Trenton, N. J.
Dr. Frederick C. Ferry	324 Hart St.	New Britain, Conn.
Dr. George Wm. McClelland ...	University of Pennsylvania..	Philadelphia, Pa.
Mr. Stanley R. Yarnall	5337 Knox St.	Philadelphia, Pa.